

DISSERTATION ON

**A STUDY TO ASSESS THE EFFECTIVENESS OF PSYCHO
EDUCATION MODULE ON KNOWLEDGE REGARDING EARLY
IDENTIFICATION OF CHILDREN WITH LEARNING
DISABILITY AMONG PRIMARY SCHOOL TEACHERS IN
SELECTED SCHOOLS AT CHENNAI.” “**

**M. Sc (NURSING) DEGREE EXAMINATION
BRANCH V- MENTAL HEALTH NURSING
COLLEGE OF NURSING
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A dissertation submitted to

**THE TAMILNADU DR. M.G.R MEDICAL UNIVERSITY,
CHENNAI - 600 032.**

In partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN NURSING

APRIL 2016

CERTIFICATE

This is to certify that this dissertation titled **a study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai** is a bonafide work done by Ms.Amali Rani. B, M.Sc Nursing II year student, College of Nursing, Madras Medical College, Chennai, submitted to the Tamil Nadu Dr.M.G.R Medical University, Chennai, in partial fulfillment of the university rules and regulations towards the award of degree of Master of Science in Nursing, Branch-V, Mental Health Nursing, under our guidance and supervision during the academic period from 2014-2016.

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DISSERTATION ON

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ABSTRACT

Title: A study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai.

According to WHO “children are priceless resource and that any nation which neglects them would do so as its peril”. There are children who look normal and behave normally but academically they are not good as their peers. They suffer a lesser- known condition called Learning Disability (LD).

Need for the study

Teachers are the child’s first contact after school entry and the ideal person to detect a learning problem. Unfortunately, most either ignore the deficiency or blame it on the child’s personality branding it as laziness, an attitude problem, or aggression. The child continues to graduate from one class to the other very inept at handling the pressure of the higher classes. This also leads to behavioral problems. Hence, there is a need to improve knowledge regarding the problem amongst teachers.

Objective

- To identify the demographic variables of primary school teachers in selected schools.
- To assess the knowledge of the primary school teachers before implementing psycho education module regarding early identification of children with learning disability.
- To evaluate the knowledge of the primary school teachers after implementing psycho education module regarding early identification of children with learning disability.
- To determine the effectiveness of psycho education module among primary school teachers by comparing pretest and post test scores.
- To find out the association between posttest knowledge scores with selected demographic variables of primary school teachers.

Methodology

Research approach: Quantitative approach.

Study design: Pre experimental one group pre test-post test design

Sampling technique: Convenient sampling

Study population: Primary school teachers at selected schools, Chennai.

Tool: Socio demographic tool and self-structured knowledge questionnaire.

Data collection procedure: After pretest procedure, psycho education module should implemented by six sessions regarding four aspects of learning disability. On 8th day and posttest had conducted.

Data analysis:

Demographic variables were analyzed by descriptive statistics by using frequency, percentage, mean, and standard deviation. Knowledge variables were assessed by inferential statistics (chi-square test and paired 't' test).

Study results:

The pretest knowledge score among teachers was 38.1% after psycho education posttest score was 76.1%. Therefore, the significant difference between the pre test and posttest knowledge score is 38%.

Discussion:

The above findings revealed that the psycho education module is effective in enhancing the knowledge of the primary school teachers and considerable association found between the demographic variables and posttest knowledge scores. Hence, the objectives had achieved and the research hypotheses were proved.

Conclusion:

The study concluded that the teacher's role in early identification of children with learning disability is mandatory. The existing knowledge of primary school teachers on learning disabilities was inadequate and moderately adequate. Through psycho education program teachers had gained adequate knowledge (38.3%) and excellent knowledge (61.7%). Therefore, the increase in knowledge level reflects the effectiveness of psycho education module.

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LIST OF ABBREVIATIONS

ABBREVIATION	EXPANSION
ADHD	Attention Deficit Hyperactivity Disorder
ANOVA	Analysis Of Variance
CBSE	Central Board For Secondary Education
CI	Confidence Interval
CIIP Evaluation model	Context Input Product Process Evaluation model
DF	Degree Of Freedom
FIG	Figure
H1 H2	Research hypothesis
LD	Learning Disability
MHRD	Ministry of Human Resource Development
NIMHANS	National Institute of Mental Health And Neuro Sciences
SD	Standard Deviation
SSA	Sarva Shiksha Abhiyan
WHO	World Health Organization
χ^2	Chi square test

CHAPTER I

INTRODUCTION

All Birds Find Shelter During Rain

But Eagle Avoids Rain By Flying Above The Clouds.

“Problems Are Common, But Attitude Makes The Difference”

DR. A.P.J Abdul Kalam

According to **Mahatma Gandhi**, "Education means all round drawing out of the best in child and men body, mind and spirit".

Learning is a modification of behavior through experience and training. Therefore, it is a growth and development process. Learning is a process by which an individual acquires knowledge, attitudes, and skills that are necessary to meet the demands of life. Learning changes the behavior of an individual through experiences.

Today's children are tomorrow's citizens. Around 35 to 45% constitutes the children of total world's population. The future of our country depends on the health of young people.

Children spend most part of their working hours in school with teachers who play an important role in molding their future. A teacher is responsible for the integrated all round development of a child. Like a gardener, he provides all suitable conditions for their best growth. Only an efficient and an understanding teacher can identify the capacities, strength, and weakness innate in each student.

Reading and learning are the two things that determine the success of a child during his/her school career. First child learns to read, and then child reads to learn. Reading is therefore of paramount importance in the educational process. Unfortunately, poor reading skills, and therefore

poor learning skills, have become a reality for an alarming number of children.

Research in the area of learning disorders in India began only recently. Students have experienced academic problems associated with learning disorders for a long time, but those problems were ignored in the crowded classrooms. The study of learning disorders is gradually gaining momentum as more and more students are experiencing problems in academic and non-academic areas.

Current literature indicates that 10-14% of the 416 million children in India have learning disorders making it the most widespread disorder. It is estimated that India has 5 students with learning disorders in every average-sized class.

Learning disorder refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of skills such as listening, speaking, reading, reasoning, writing or mathematical skill. LDs are intrinsic to the individual and are due to central nervous system dysfunction.

Students with learning disorders may become so frustrated with their performance in school that by adolescent they may feel like failure want to drop out of school or may develop behavioral problems so learning disorders should be identified as early as possible during school years.

Lack of awareness about learning disability is one of the reasons for not identifying great talent and potential in school children. It is generally reported that approximately 5-20% of the children across the world suffer from learning disorder. These children find difficulty in managing the academic works. They may also be slow learners. They would score poor marks. In most of the cases, these children are branded as 'useless', 'poor performers', etc by the teachers and parents. They are also given punishment. These children are not intellectually weak. They possess different skills like music, sports, art, acting, innovation, drawing, craft, driving, etc.

Many eminent people like Winston Churchill, Einstein, Isaac Newton, Thomas Alva Edison and many popular Hollywood actors were dyslexia in their childhood. If these children are not identified and remedied, we will be guilty of losing great men of eminence for future.

Identification of disorder prior to school age is difficult due to the instability of results obtained from formal testing procedures. Teachers are the first person to notice that the child is not learning as expected. They often exhibit some challenging behaviors also.

Many teachers lacking in the appropriate training and experience to identify a young child who is at risk. Although they should assess a child's problems every two to three months, they often delay frequent evaluation of a young child with reading difficulties until third or fourth grade because they think that the problems are just temporary and that they will be outgrown.

Early intervention is not a universal remedy, but it can result in more effective educational planning. Parents cannot afford to wait until their child suffers tragic losses in educational opportunities, self-respect, and eventual academic and intellectual achievement.

1.1. Need for the study

“The best brains of the nation may be found on the last benches of the class room”- Dr. A.P.J. Abdul Kalam

The [United Nations Millennium Development Goal 2](#) is to achieve [universal primary education](#) by the year 2015, by which time they aim to ensure that all children everywhere regardless of race or gender, will be able to complete primary schooling.

The Sarva Shiksha Abhiyan (SSA) which means *Education for All* was launched in 2000. Under the SSA program, it is mandatory to provide education to children with any disability irrespective of the severity. Its goals also include early detection and identification, functional and formal assessment, educational placement, teacher and parent training, and strengthening of special schools .

According to MHRD statistics of school education (2011-2012)

	<i>India</i>	<i>Tamil Nadu</i>	<i>Chennai</i>
No of schools	1399185	44333	1494
No of primary schools	712437	29060	659
Enrolment of I-V	139869904	2923205	109494
Primary school teachers	2254000	137227	5336
Dropout rate I-VIII	40.8	1.58	1.50

The household survey conducted in all districts of India (2007) identifies that there are six major reasons for children who have remained out of school. They classified as lack of interest, lack of access, involved in household work, migration, earning compulsion,

failure etc. In this lack of interest and failures may present due to learning difficulties in children.

Parents and teachers, who are unaware about learning disability. Even in cities, schools are hostile towards learning disabilities at large and ignorant about characteristic features and specific academic difficulties. The lack of necessary facilities for identification, along with delay in referral and remediation results in severe damage to their self-esteem and motivation to study leading to a vicious cycle of academic, emotional and behavioral problems. There looms a large degree of ignorance among teachers about the diagnosis of learning disabilities, resulting in a hostile attitude towards the child.

Since the investigator belongs to postgraduate in Psychiatry and Mental Health Nursing instigate to select this topic and do the inquiry for the favor offering knowledge to primary school teachers for the bright future of children.

1.2. Statement of the problem

A study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai.

1.3. Objectives:

- To identify the demographic variables of primary school teachers in selected schools.
- To assess the knowledge of the primary school teachers before implementing psycho education module regarding early identification of children with learning disability.
- To evaluate the knowledge of the primary school teachers after implementing psycho education module regarding early identification of children with learning disability.
- To determine the effectiveness of psycho education module among primary school teachers by comparing pretest and post test scores.
- To find out the association between posttest knowledge scores with selected demographic variables of primary school teachers.

1.4. Operational definitions

Assess:

It refers to the organized, systematic, and continuous process of collection of data from teachers in selected primary schools regarding early identification of children with learning disability.

Effectiveness:

It refers to determine the extent to which the information in the psycho education has achieved the desired out come as measured by gain in posttest knowledge scores.

Psycho education module:

It refers to planned and systematically organized information on early identification of learning disability among children for primary school teachers.

Knowledge:

It refers to the understanding ability of the primary school teachers regarding early identification of children with learning disability in which aspects of concepts of learning disability, types of learning disability, early identifying signs, and symptoms of learning disability and management as measured by the knowledge part of self structured knowledge questionnaire.

Learning disability:

It refers to the primary school students who had inability to listen, speak, read, write, and do even a simple mathematical calculation.

Primary school:

It refers to the Chennai corporation primary school and children studying between the 1 to 5th Standard.

Primary school teachers:

It refers to the qualified male and female teachers teaching between 1 to 5th standard.

1.5. Assumptions

This study based on following assumptions:

1. The primary school teachers have inadequate knowledge regarding early identification of learning disability in primary school children.
2. The psycho education enhance their knowledge regarding early identification of learning disability among primary school teachers.

1.6. Hypothesis

H₁ - There is a difference between the pretest & posttest knowledge scores among primary school teachers.

H₂ - There is an association between the posttest knowledge scores with their selected socio demographic variables.

1.7. Delimitations

1. Samples selected by non-probability technique.
2. The study assessed only the knowledge aspects of primary school teachers.
3. The study conducted with 60 samples.

CHAPTER II

REVIEW OF LITERATURE

The literature reviewed under the following categories:

I. Studies related to prevalence and incidence of learning disability

II. Studies related to teachers knowledge regarding learning disability

III. Studies related to effectiveness of teaching program to improve the knowledge regarding learning disability

I. Studies related to prevalence of Learning Disability

According to American journal of psychiatry (2010), the world over 10 out every 100 schoolchildren said to suffer from learning disabilities. Nearly 3 million students receive special education services and of those halves had diagnosed with learning disabilities.

According to Lalitha (2009), globally there are 4 million school age children have learning disabilities, 7.7% of children ever been told they had learning disability. Prevalence of learning disorder is conservatively estimated to range between 4% and 10% in the general school aged population in united states.

Landerl and Moll (2009), conducted a study to assess the prevalence of specific learning disabilities at Germany. Prevalence and gender ratios of specific learning disorders in arithmetic, reading, and spelling and their co-occurrence were assessed in a large (N = 2586) population-based sample of elementary school children and in a sub sample of 293

children with at least one learning disorder (LD-sample). A questionnaire on familial transmission has given to a sub sample of 256 parents of children with a learning disorder and 146 typically developing children. The rates of deficits in arithmetic, reading, or spelling were four to five times higher in samples already experiencing marked problems in one academic domain compared to the full population. Thus, co morbidity of learning disorders confirmed in a standard school population.

Smita et.al., (2009) conducted a study at Mumbai to assess the prevalence of learning disabilities and behavioral disorders. The purpose of this study was to collect data on the prevalence of learning disabilities and behavior disorders in a developing country like India. Epidemiological data obtained for a population of 333 children, ages 3-14 years. An important referral complaint was speech and language delays. Almost half of the referred population (46%) diagnosed with learning disability and 10% with behavior disorder (mainly with Attention Deficit Hyperactivity Disorder) through use of developmental, neuropsychological, and psycho-educational assessments.

Karande (2008), reported that up to 5 – 10% of “seemingly normal” school children have this hidden disability in India. Dyslexia affects 80% of all those identified as learning disabled. Up to 15 – 20% of children with specific learning disabilities have associated attention deficit hyperactivity disorder (ADHD).

Wadsworth et al.(2008) states that dyslexia is more common in males than females in the range from 1.5:1 to 4.5:1 but it is unclear whether this observation is a result of selection factors and /or bias.

Individuals with disabilities act in US (2003), has reported that 5% of school-aged population affected with learning disabilities and 52.4% of all students with disabilities ages 6 – 21 years.

Karnath, (2003), estimated that the prevalence of learning disabilities is quite high in countries like Great Britain (14%), France (12 – 14%), USA (10 – 15%), Canada (10 – 16%) and in India 10%.

II. Studies related to teachers knowledge about Learning Disability

Moothedath and Vranda (2015) assessed the knowledge of primary school teachers regarding identifying children with learning disabilities. The study sample consists of 200 samples in Bangalore. Teacher's knowledge had assessed by knowledge questionnaire. The results revealed statistically significance in overall knowledge and various domains across gender, type of school, education, class being taught and years of experience.

Susantha kumar pudhyet.al., (2015) conducted a cross-sectional questionnaire-based study in the public schools located in the urban, rural and slum areas of Chandigarh to assess the Perceptions of teachers about learning disorder. Teachers had recruited from 20 randomly selected schools out of a total of 103 schools in the Union Territory by proportionate sampling. Eighty teachers of 3rd and 4th grades of these schools recruited using purposive sampling. 80 teachers were recruited, 87.5% were females, 57.5% had more than 5 years teaching experience; 56.3% of teachers thought that they were aware of LD, 67.5% of teachers perceived that they do encounter children with LD in the school, 43.8% endorsed educating such children in special schools, while 36.3% endorsed integration to regular schools.

Shukla and Agarwal (2014) attempts to investigate the knowledge and awareness of learning disabilities among primary school teachers. In this explorative research, 68 primary school teachers in 15 schools selected based on lottery method in Haridwar region. The study found 67% of teachers had no knowledge of learning disabilities, 20% teachers had little aware of learning disabilities and only 11% teachers knew about the learning disabilities satisfactorily.

Gandhimathi (2010), studied the awareness on Learning Disabilities among primary school teachers and suggest remedial measures to teachers who handling children with learning disabilities. The universe of the study was consists of primary school teachers working in 80 schools in Triuverumbur block, Tiruchirappalli. Based on lottery method, 16 schools selected and the data had collected from 71 teachers in these 16 schools. He was found that majority of the

respondents (66.2%) were found to have low level of overall awareness about learning disabilities.

Saravanabhavan and Saravanabhavan(2010) attempts to determine the knowledge level of learning disabilities (LD) among teachers in India. A survey distributed among 144 teachers in two regular high schools, 38 teachers in two special schools, and 165 pre-service teachers at teacher education college in a southern state of India. Teaching experience and familiarity with persons with LD did not affect the knowledge level of the three groups of participants. The study makes recommendations on how to improve the knowledge level of learning disabilities among pre-service teachers in India, and the need to assess knowledge of LD among physicians, parents, paraprofessionals, educational administrators, and other stakeholders.

Khatib and Jamal (2007) investigated 405 regular teachers knowledge on learning disabilities and whether this knowledge differed as a function of selected variables. Teachers completed a 40 items, test designed by the investigator. T tests and ANOVA used to analyze the surveyed data. Females had found to be significantly more knowledgeable than males. Teacher's level of knowledge was unrelated to teacher's age, teaching experience, or academic qualifications.

III Studies related to effectiveness of teaching program

Deepthi et al (2015) aimed to assess the effectiveness of structured teaching program on knowledge regarding specific learning disabilities among primary school teachers at Puducherry. True experimental pretest-posttest control group design was adopted. Samples (60) selected by simple random technique. The study findings revealed that majority of teachers had poor level of knowledge. The structured teaching program is an effective method to increase the knowledge of primary school teachers.

Williams et al (2013) conducted quasi experimental study to evaluate the effectiveness on teaching package on competency of primary school teachers regarding LD among children at Bhainyawala, Dehradun. Total 38 teachers selected by convenient sampling technique. The findings of the study proved that the teaching package improves the competency of primary school teachers regarding LD.

Pawar and Mohith (2014) aimed to assess the effectiveness of self-instructional module on knowledge regarding learning disorders among primary school teachers at Karad, Maharashtra. An evaluative research approach with 60 samples selected by convenient sampling technique. The study concluded that the self-instructional module significantly brought improvement in the knowledge of primary school teachers regarding learning disorders among children.

Lalitha and Padmavathi (2009) conducted a study to assess the effectiveness of structured teaching program on the level of knowledge and opinion of teacher trainees regarding learning disabilities among children in selected training institutions at Kolar district, Karnataka. 30 trainees were selected by census method. The paired differences between the pretest knowledge and the posttest knowledge showed the knowledge gain, and the value was 11.3 and the 'p' value was significant at 0.001. This indicated that the structured teaching program was effective in improving the knowledge of the teacher trainees on learning disabilities. The paired differences between the pretest opinion and the posttest opinion showed that the opinion changed towards favorable direction, and the value was 7.66 and the 'p' value was significant at 0.001. This indicated that the structured teaching program was effective in changing the opinion of the teacher trainees on learning disabilities.

A quasi-experimental study conducted by NIMHANS Bangalore (2005), to assess the effectiveness of structured teaching program on the level of knowledge of teacher trainees towards learning disabilities. The samples were 32 teacher trainees from second year D. Ed. program at Shree Vijayendra D. Ed. College, Kolar Gold Fields. The pre-test knowledge mean score was 17.75, standard deviation was 4.19, and the post-test knowledge mean score was 28.78, standard deviation was 5.41. The paired difference between the pre-test knowledge and post-test knowledge showed the knowledge gain, and the value was 11.3 and 'p' value was significant at 0.001. This indicated that study was effective in improving knowledge of teachers on learning disabilities.

A study conducted by **Sarva shiksha Abhiyan (2005)**, Tamil Nadu regarding remedial program for children with learning disabilities. The objectives of the study were to measure the intellectual development of children with learning disability, to provide psycho education program

and to conduct teaching program for teachers. This study used different methods like general intelligence and attitude test, general achievement and personality test. It suggested orientation program regarding learning disability must arrange for the teachers.

2.2. Conceptual framework of the study

Conceptual framework is a conceptual approach to the study of problems that are scientifically based which emphasizes the selection, arrangement, and clarification of its concepts.

Daniel L. Stufflebeam developed the framework of the present study in (2003). The CIIP Evaluation module is a comprehensive framework for guiding evaluations of programs, projects, personnel, products, institutions, and systems. The CIIP Model focused on program evaluations, particularly those aimed at effecting long term, sustainable improvements. The model's main theme is that evaluations most important purpose is not to prove, but to improve.

In this decision-oriented approach, program evaluation defined as the “systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future programming.”

The CIPP evaluation model is a framework for guiding evaluations of programs, projects, personnel, products, institutions, and evaluation systems (Stufflebeam, 2003). Designed to assist administrators in making informed decisions, CIPP is a popular evaluation approach in educational settings. This approach, developed in the late 1960s, seeks to improve and achieve accountability in educational programming through a “learning-by-doing” approach .

Components of Stufflebeam's (2003) CIPP Model.



Major concepts

The major concepts of this model are

1. Context evaluation

Context evaluation assesses needs, assets, and problems within the defined environment.

In this study, context refers to knowledge in early identification of learning disability. Needs are to improve the knowledge regarding identification of learning disability among primary school teachers through psycho education program. Assets are the primary school teachers working in primary schools who has exposed to the psycho education and the problems are lack of awareness about early identification of learning disability. This evaluated with the use of knowledge assessment questionnaire on early identification of learning disability.

2. Input evaluation

Input evaluation assesses competing strategies and the work plans and budgets of the selected approach.

In this study, input refers to planning and formulating learning objectives, psycho education program, teaching aids, schedule with date and time, venue for conducting the psycho education program by using teaching methods regarding early identification of learning disability.

3. Process evaluation

Process evaluation investigates the quality of the program's implementation. In this stage, program activities should monitor, documented, and assessed by the evaluator.

In this study, it would carried out by

- ◆ Administration of psycho education module in the aspects of concepts of learning disability, early identification of learning disability, and management of learning disability. The methods of teaching used are lecture, discussion. Audio visual aids used are booklet, pamphlet, and power point presentation.

4. Impact evaluation

Impact evaluation assesses a program reach to the target audience. In this study, after implementation of psycho education module posttest conducted to identify the effectiveness of psycho education module regarding early identification of children with learning disability.

5. Product evaluation

It measures the outcome of the program.

It refers to the comparison of pre test and posttest scores on knowledge of early identification of learning disability among primary school teachers.

6. Effectiveness evaluation

Effectiveness evaluation assesses the quality and significance of outcome. In this study, the outcome will be either increase in knowledge, decrease in knowledge or no change in knowledge when the level quantified.

If the outcome of entire process is wrong (no improvement in the scores) that shows the psycho education module is not effective to the study sample. Therefore, there is need to recycle the phases. The outcome had said to be effective if the scores increased as compared with the pretest scores on early identification of learning disability.

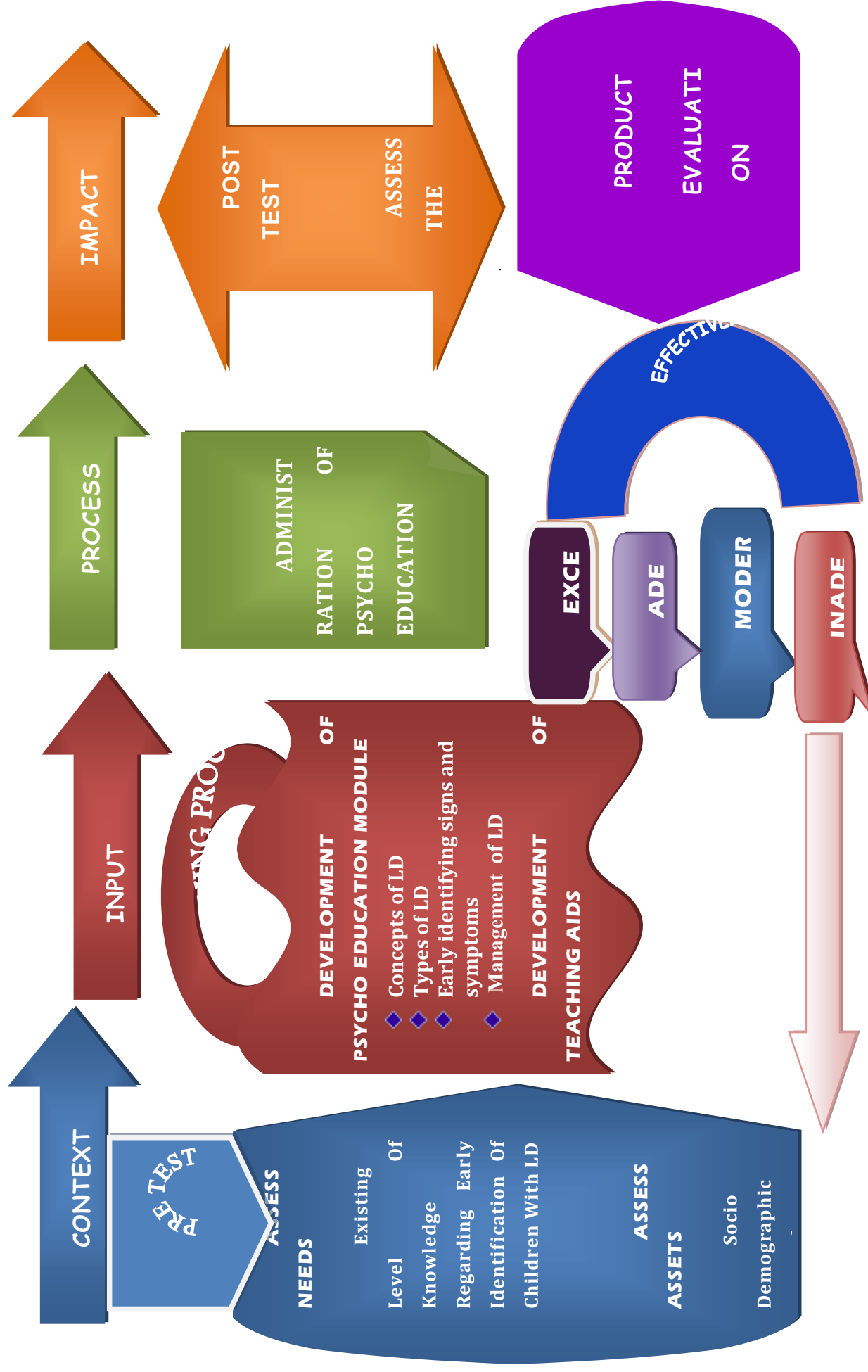


FIG 2.1 Modified CIIP Evaluation Model developed by Daniel L. Stufflebeam (2004)

CHAPTER – III

METHODOLOGY

3.1. Research approach

A quantitative approach used in this study.

3.2. Duration of the study

Four weeks (17.07.2015 to 16.08.2015)

3.3. Setting of the study

The study conducted at selected corporation primary schools that are located in Chennai. The Chennai corporation education department had started with 40 primary schools in the year 1912. Now it functions with 659 primary schools with the enrollment of 109494 students and the drop rate was 1.50.

3.4. Study design

A pre experimental one-group pretest - posttest design has adopted to assess the effectiveness of psycho education module on early identification of learning disabilities among primary school teachers at Chennai.

The pre experimental design that is represent below.

GR OUP	PRE TEST	INTERVENTION	POST TEST
One	O ₁	X	O ₂

O1 - Pretest to assess the level of knowledge regarding early identification of children with learning disability among primary school teachers.

X- Intervention, which was to be administer in the form of psycho education module.

Intervention protocol

Place	:	Selected Chennai corporation primary schools
Intervention	:	Psycho education module
Tool	:	Self structured knowledge questionnaire
Duration	:	Four weeks
Frequency	:	Once a day
Time	:	12pm to 1pm
Population	:	Primary school teachers

Protocol : ***Psycho education module consists of four domains***

- ◆ Concepts of LD
- ◆ Types of LD
- ◆ Early identifying signs and symptoms of LD
- ◆ Management of LD

Teaching aids

- ❖ Pamphlet
- ❖ Booklet
- ❖ Power point presentation

Participants

60 primary school teachers from four corporation primary schools. Each school consists of 15 teachers.

Teaching session

7 sessions.

O₂- Posttest to assess the level of knowledge regarding early identification of children with learning disability among primary school teachers.

3.5. Study population

Target population

The target population of this study was primary school teachers.

Accessible population

The accessible population in this study was primary school teachers at selected corporation primary school at Chennai.

3.6. Sample Size

A sample of 60 primary school teachers who met sampling criterion.

3.7. Criteria for selection of samples

3.7.1. Inclusion Criteria:

Teachers who

- are teaching I to V standard school children.
- are willing to participate in this study
- are present at the time of data collection.
- can speak and understand English and Tamil.

3.7.2 Exclusion criteria:

- Teachers who are taking class other than primary school children.
- Teachers who had experience less than three years.

3.8. Sampling technique

Corporation officials allotted schools and the samples selected by convenient sampling technique.

3.9. Research Variables

Independent variable

Psycho education module on early identification of children with learning disability.

Dependent variable

Level of knowledge of the primary school teachers regarding early identification of children with learning disability.

3.10. Development and description of the tool

3.10.1 Development of the tool

Tools developed after extensive review of literature from various textbooks, internet access, journals, discussion, and the guidance from the experts in the field of nursing, education, medical, statistician department of psychiatry. A structured questionnaire was used to collect the data from the primary school teachers who are taking class from I to V std in a selected primary schools.

3.10.2 Description of tool

It has two sections A and B as follows

Section A: Demographic profile

It consists of demographic variables such as Age, gender, educational status, years of experience, marital status, child psychology in their curriculum, previously attended any in service program on problems in learning.

3.10.2. Section B: Structured knowledge questionnaire

- ◆ Consist of structured questionnaire regarding knowledge of primary school teachers on early identification of children with learning disability.

- ◆ The self-administered knowledge questionnaire consists of 20 multiple-choice questions on four aspects.

- ◆ Concepts of LD

- ◆ Types of learning disability

- ◆ Early identifying signs and symptoms of learning disability

- ◆ Management of learning disability.

Scoring procedure

- ◆ The multiple-choice questionnaire had used to assess the knowledge on early identification of children with learning disability.

- ◆ Each right answer has scored as one and each wrong answer scored as zero.

- Minimum score = 0

- Maximum score =1

- Questions= 20

- Total score=20

Interpretation

To interpret the knowledge about early identification of children with learning disability among primary school teachers, the scores were classified into four categories as inadequate, moderately adequate, adequate, and excellent.

Table 3.1 Score interpretation

S.NO	GRADE	SCORE	In %
1.	Inadequate	0 - 5	0-25
2.	Moderate	6 - 10	26-50
3.	Adequate	11 - 15	51-75
4	Excellent	16 -20	76 – 100

3.10.3. Content validity

Validity of the tool was assessed using content validity. Medical, nursing, and statistical experts evaluated content validity. Suggestions and modifications given by the experts incorporated in the tools.

3.11. Ethical consideration

The research and ethics committee of Madras Medical College, Chennai, approved the study objective, intervention and data collection procedure.

3.12. Pilot study

Pilot study conducted in a corporation primary school in Chennai for 1 week (22.06.15 to 27.06.15). For pilot study 10 teachers were selected by convenient sampling technique. Informed consent obtained and demographic data had collected from the primary school teachers.

Data were obtained from the primary school teachers by using the structured knowledge questionnaire before the implementation of psycho education module. After the completion of psycho education module, the primary school teachers had assessed for their knowledge regarding

early identification of children with learning disability by using same questionnaire.

3.13. Reliability of the tool

After pilot study, reliability of the tool was assessed by using Test-retest method. Knowledge score reliability correlation coefficient value was 0.78. This correlation coefficient is very high and it is a good tool for assessing the effectiveness of psycho education module among selected primary school teachers regarding early identification of children with learning disability in selected primary schools at Chennai.

3.14. Data collection procedure

The study was conducted in the various schools around Chennai. The permission was obtained from Deputy Commissioner of Education, Corporation of Chennai, Education officer, Corporation of Chennai and they gave the list of 13 schools in the Chennai Corporation, which are feasible for conducting study. From the list investigator selected four corporation primary schools; this consists of 80 primary school teachers.

Each school head masters/ headmistress contacted for getting convenient time for data collection procedure. From the total no of 80 teachers, investigator selects 75 teachers initially based on sampling criterion. Among this, 8 of them dropped out due to attending in service program on activity based learning, 5 of them on leave and 2 of them are not willing to participate in the study. Finally, 15 teachers were available from each school and the total sample size consists of 60.

Before the data collection procedure, some informal discussion was made with participants to establish rapport so that they would be relaxed. Teachers were informed about the objectives of the study. The teachers assured that their responses and details kept confidential, and will be used only for the research purpose.

The pretest knowledge questionnaire was administered to them and they had to give appropriate answers for all the items. After the pretest procedure, the psycho education module was implemented regarding early identification of children with learning disability in following topics and sessions.

Table 3.2 Psycho Education Module

Day	Session	Topics	Duration
1	I	Concepts of learning disability (It includes concepts of learning, meaning and definition of LD and causes of LD)	40 minutes
2	II	Types of learning disability	30 minutes
	III	Review of I & II sessions	20 minutes
3	IV	Early identifying signs and symptoms of LD	40 minutes
4	V	Management of LD	40 minutes
	VI	Review of IV & V sessions	20 minutes
5	VII	Overall review and discussion	40 minutes

After 1-week, posttest had conducted to assess their knowledge. At the end of the posttest teachers shared their opinion about the study that helps them to identify the children with learning disability and able to guide the parents about the children at home.

3.15. Data entry and analysis

Descriptive and inferential statistics used for data analysis. The collected data tabulated and analyzed by using descriptive and inferential statistical methods.

Table 3.3 Method of data entry and analysis

. No	Data analysis	Methods	Remarks
1.	Descriptive statistics	Frequency, percentage, mean, standard deviation	Describe the demographic variables of primary school teachers.
2.	Inferential statistics	Paired 't' test	Compare pretest and posttest knowledge scores.
		Chi square test	<p>Compare the pretest and posttest knowledge scores.</p> <p>Find association between posttest and selected demographic variables.</p>

SCHEMATIC REPRESENTATION OF THE STUDY

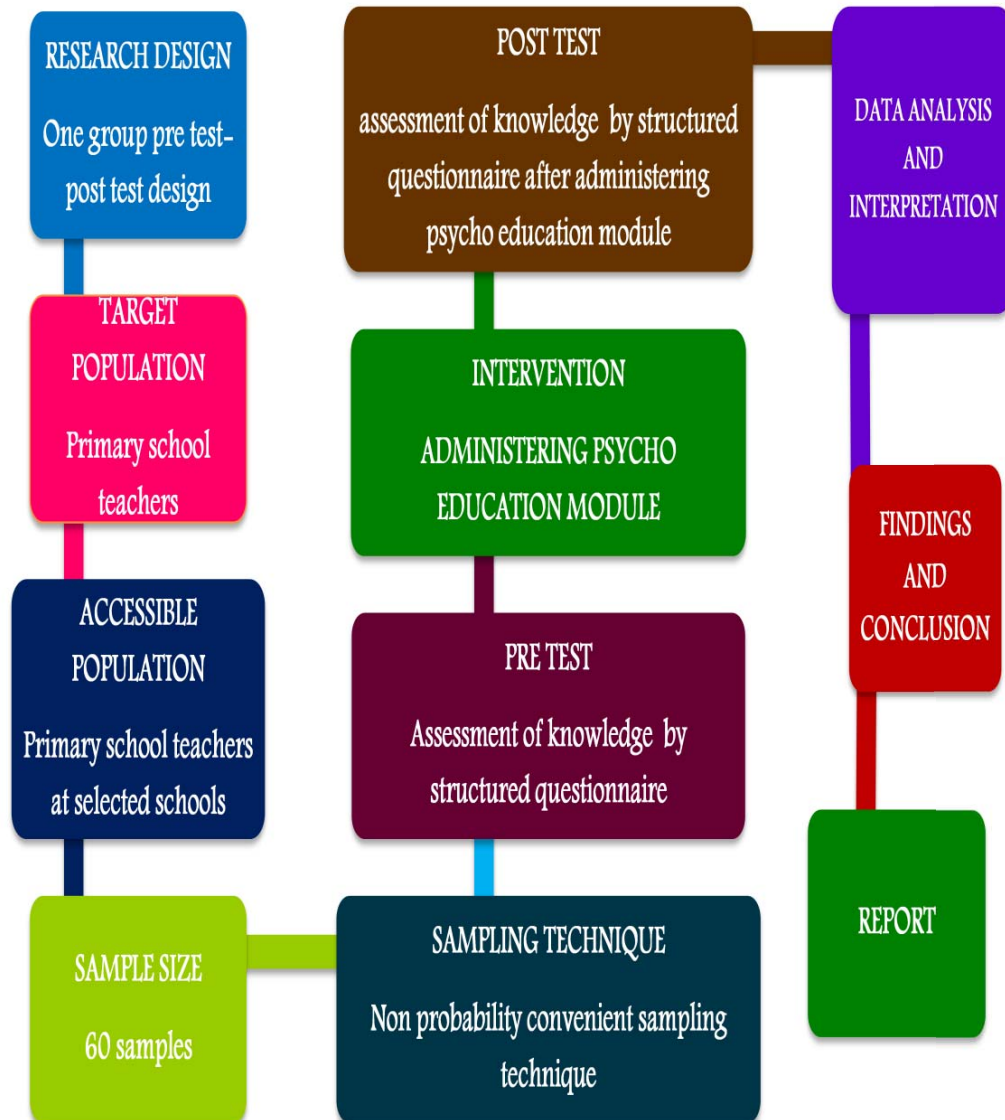


Fig. 3.2 Schematic representation of the study

CHAPTER IV

DATA ANALYSIS AND NTERPRETATION

This chapter deals with the analysis and interpretation of the data obtained from 60 primary school teachers who were working in selected corporation primary schools at Chennai. Statistical procedure enabled the investigator to analyze, summarize, evaluate, interpret, and communicate the numerical information. Statistical analysis is a method of rendering quantitative information meaningful and intelligible.

The collected data were tabulate and presented according to the objectives under the following headings.

SECTION – I: Demographic variables of primary school teachers.

SECTION - II: Assess the knowledge of primary school teachers before implementing psycho education module.

SECTION - III: Assess the knowledge of primary school teachers after implementing psycho education module.

SECTION – IV: Effectiveness of psycho education module

SECTION – V: Associate the effectiveness of psycho education module with selected demographic Variables

SECTION- I

Table 4.1. Distribution of socio demographic variables of primary school teachers

N = 60

. No	Demographic variables		Fre quency	In %
1	Age in years	20 -30	4	6.7
		31 -40	33	55.0
		> 40	23	38.3
2	Gender	Male	10	16.7
		Female	50	83.3
3	Educational qualification	Teacher training program	32	53.3
		B. Ed	28	46.7
4	Years experience of	3-5	2	3.3
		5–10	12	20.0
		> 10	46	76.7
5	Marital status	Married	58	96.7
		Unmarried	2	3.3
	Had child	Yes	57	95.0

6	psychology in curriculum	No	3	5.0
7	Attended in service education on problems of learning	Yes	16	26.7
		No	44	73.3
8	Had any history of handling learning disabilities in your classroom	Yes	3	5.0
		No	57	95.0

Table 4.1: Shows the demographic information of primary school teachers those who participated in this study.

Age wise distribution of primary school teachers shows that higher proportion (55 %) of the teachers belongs to the age group of 31- 40 years, 38% belongs to >40 years and only 7% of teachers belongs to 20-30 years of age group.

Gender wise distribution of primary school teachers shows that 83.3% of the primary school teachers were female and only 16.7% were male.

As far as the **educational status** of the primary school teachers are concerned, 53.3% of them had undergone the teacher-training program and around 47% had B. Ed qualification.

Years of experience wise distribution of primary school teachers shows that most of them (76.7%) have more than 10 years of experience, 20% of them had 5-10 years of experience, and only 3% of them had 3-5 years of experience.

Marital status wise distribution of primary school teachers shows that 97% of them were married and only 3% of them were not married.

Had child psychology in their curriculum wise distribution of primary school teachers shows that 95% of the primary school teachers had child psychology in their curriculum and only 5% of them not having.

Distribution of attended previous in-service education on problems of learning wise shows that 73% did not attend the previous in-service education on problems of learning and only around 27% had attended.

Distribution of handling learning disability in their classroom wise shows that 95% of the primary school teachers did not handling learning disability in their classroom and only 5% of them handled learning disability children.

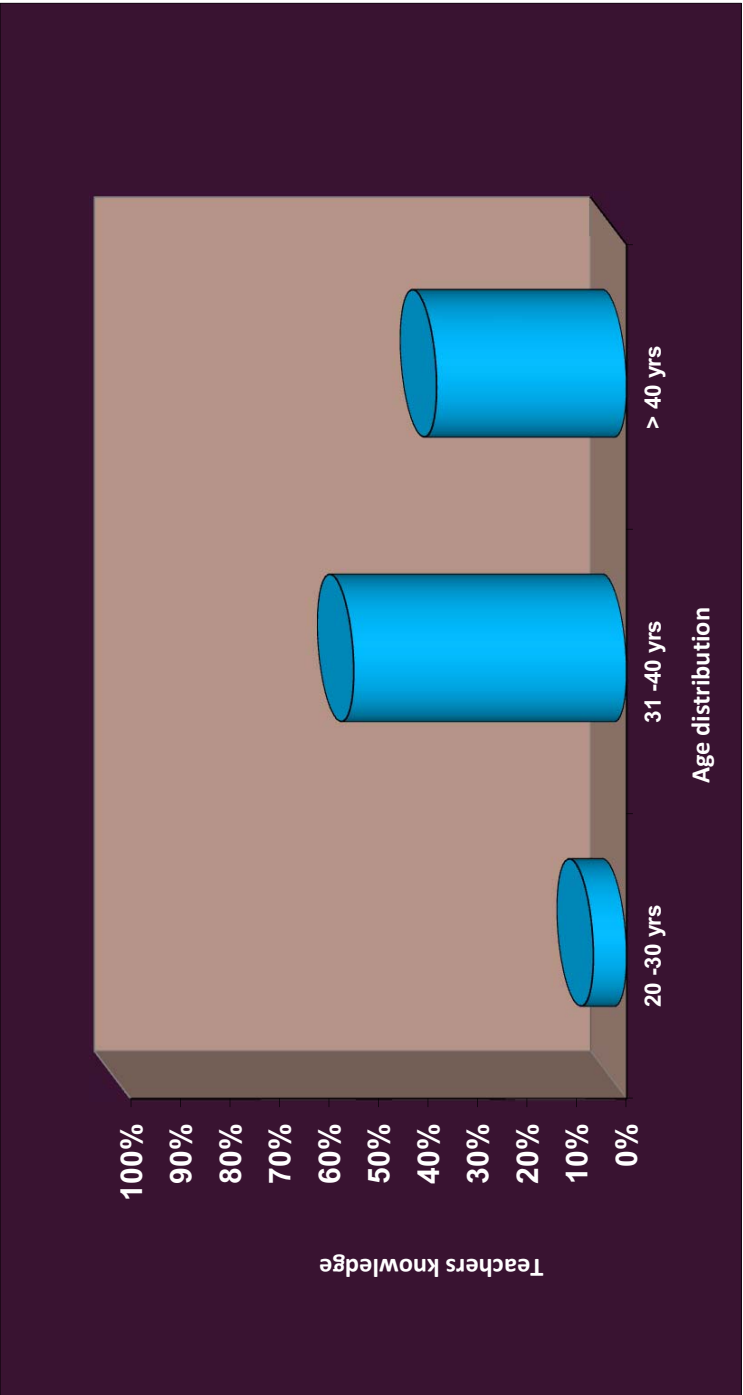


Fig 4.1 Age wise distribution of the primary school teachers

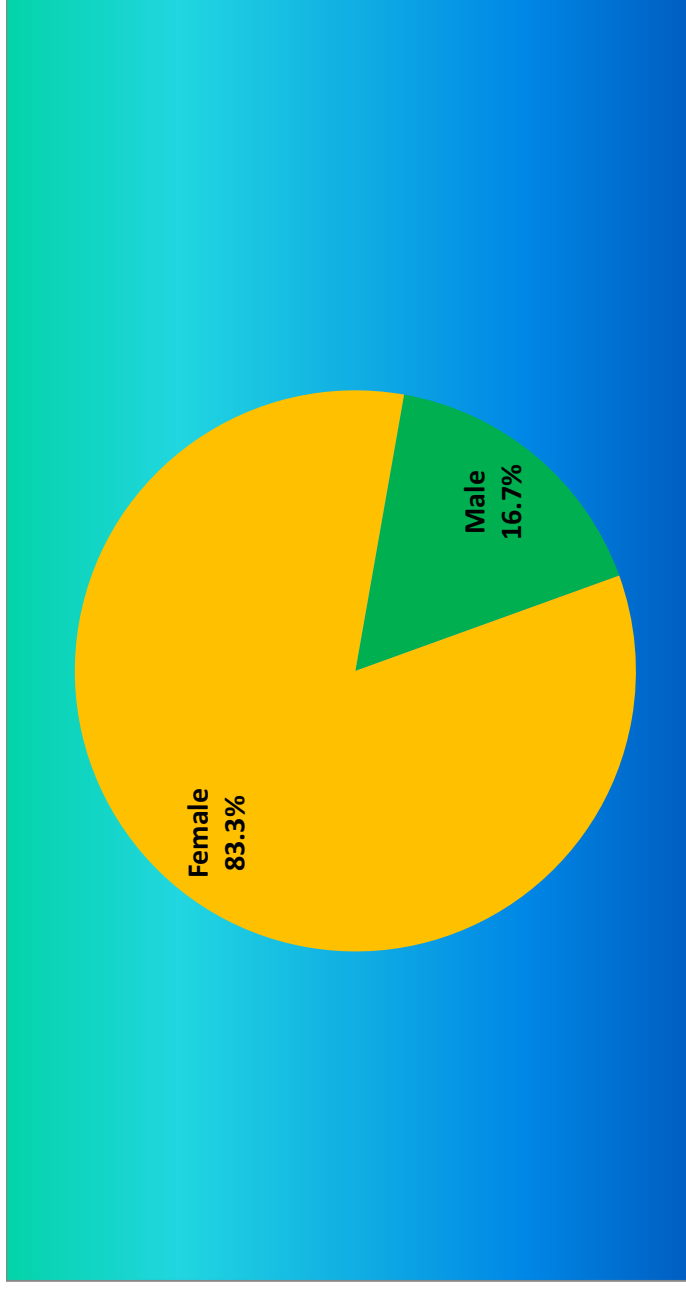


Fig.4.2. Gender wise distribution of the primary school teachers

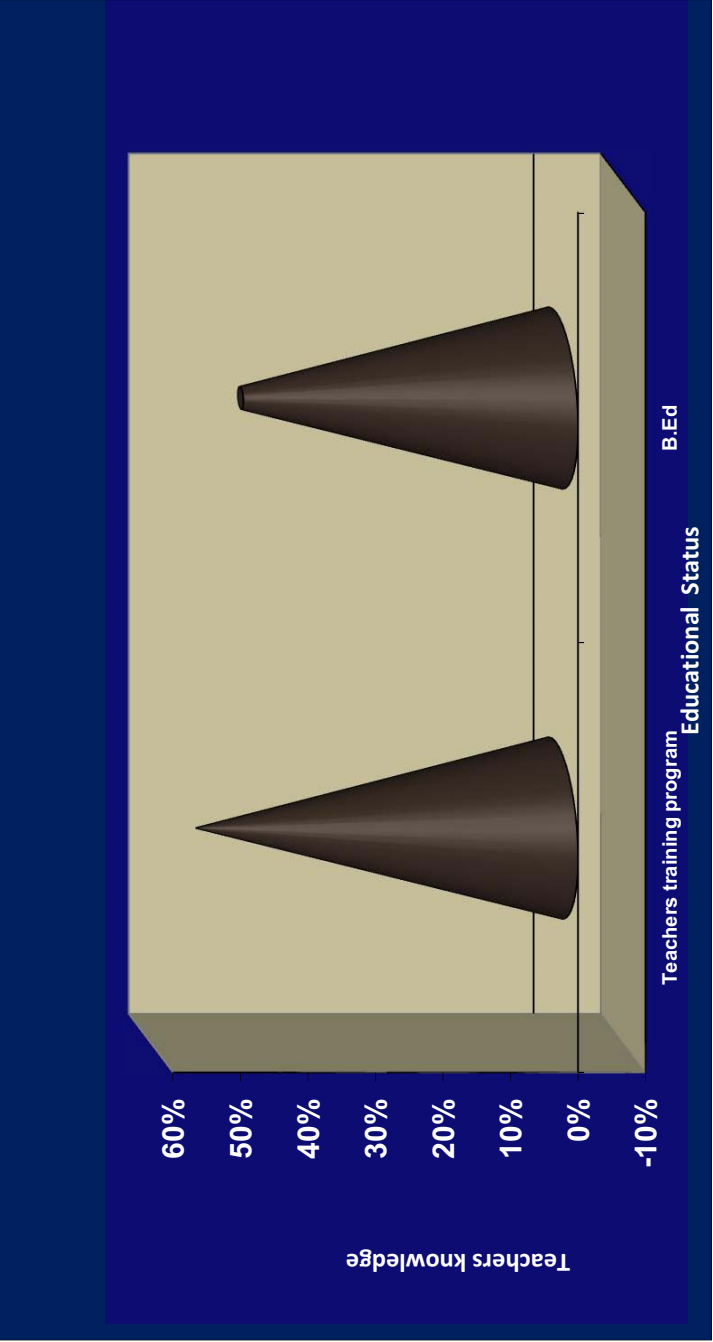


Fig 4.3 Educational status wise distribution of the primary school teachers

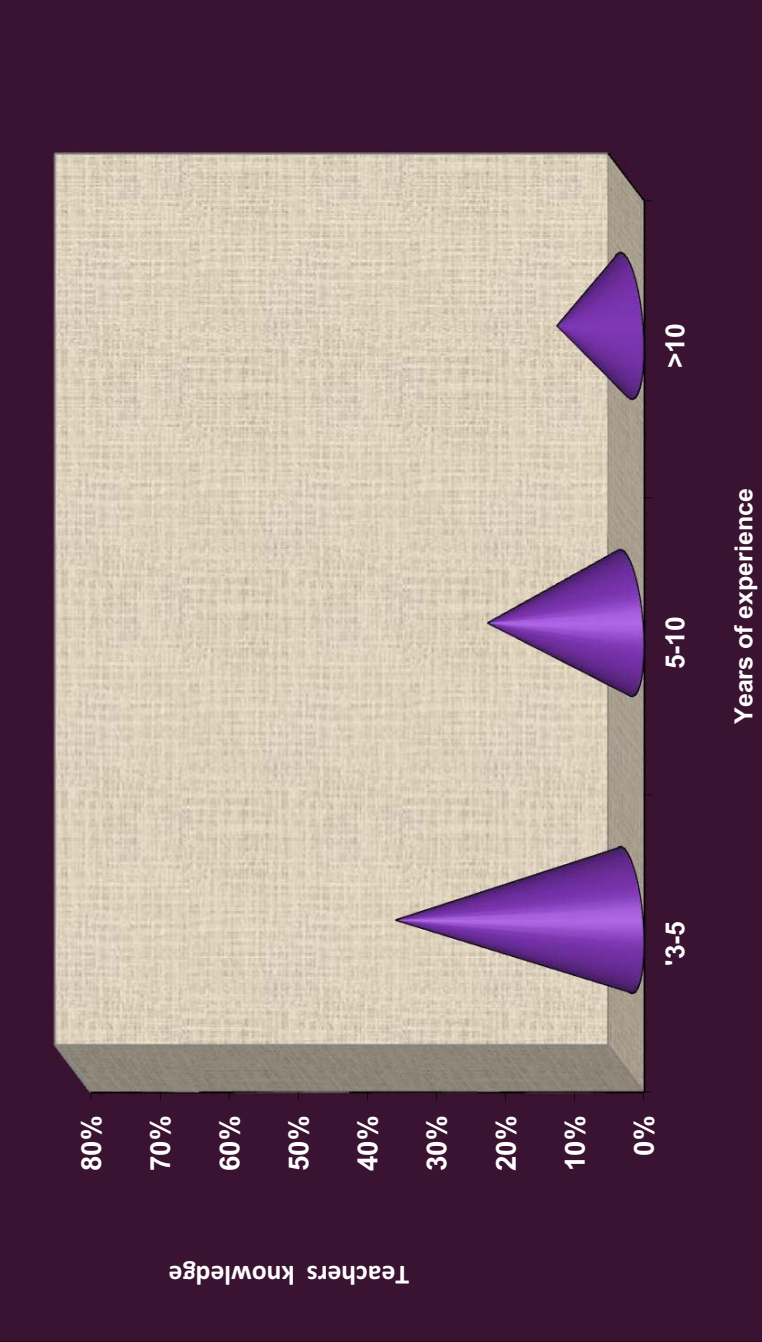


Fig 4.4 Years of experience wise distribution of the primary school teachers

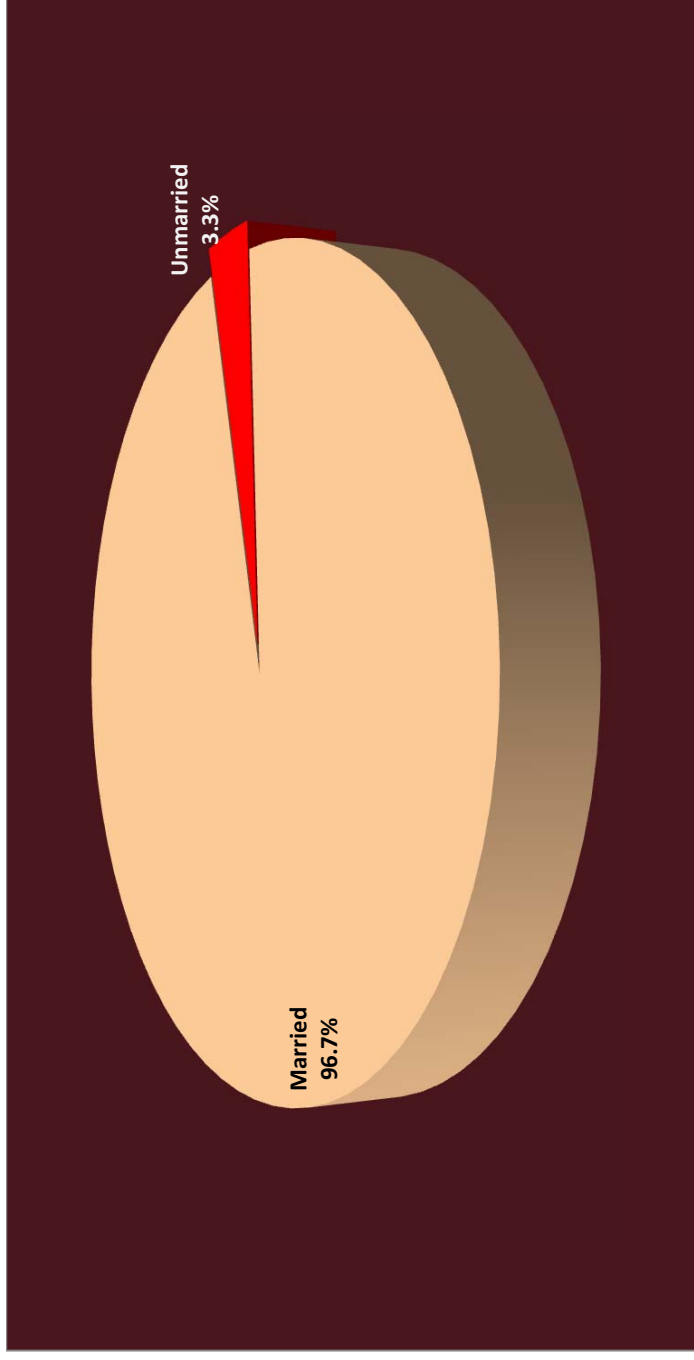


Fig 4.5 Marital status wise distribution of the primary school teachers

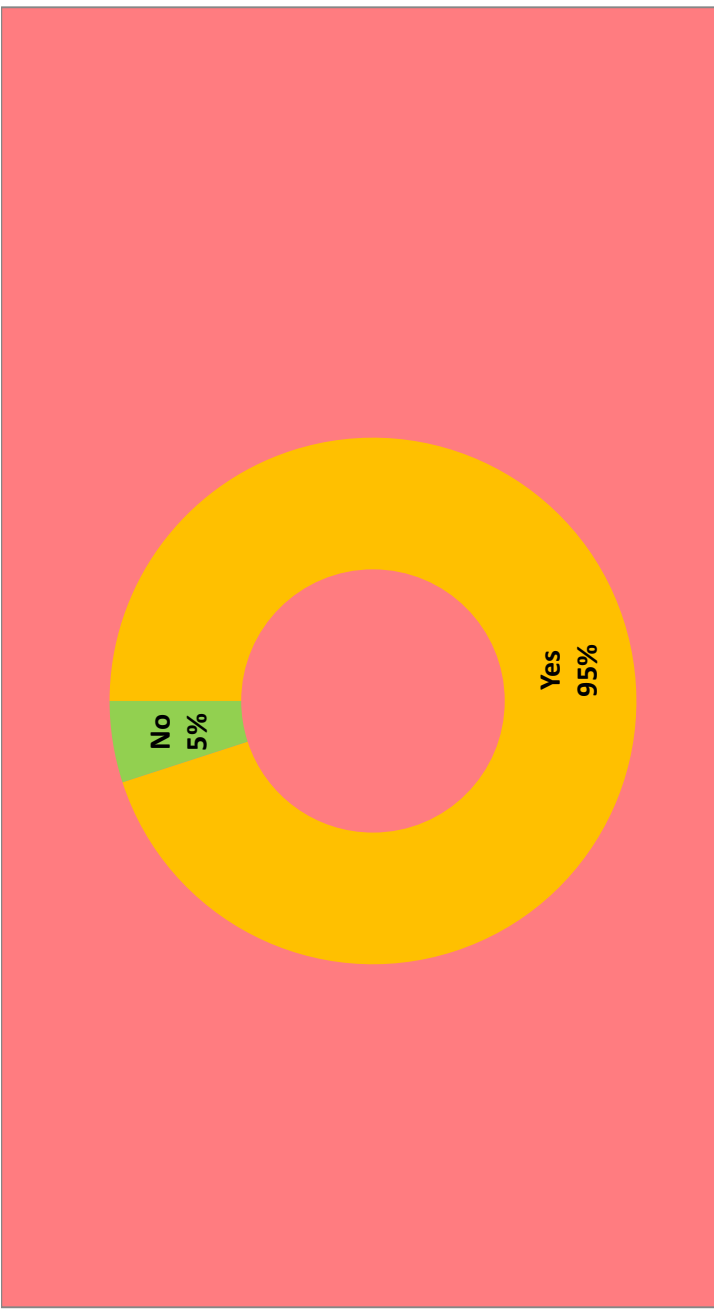


Fig 4.6 Had child psychology in their curriculum wise distribution of primary school teachers

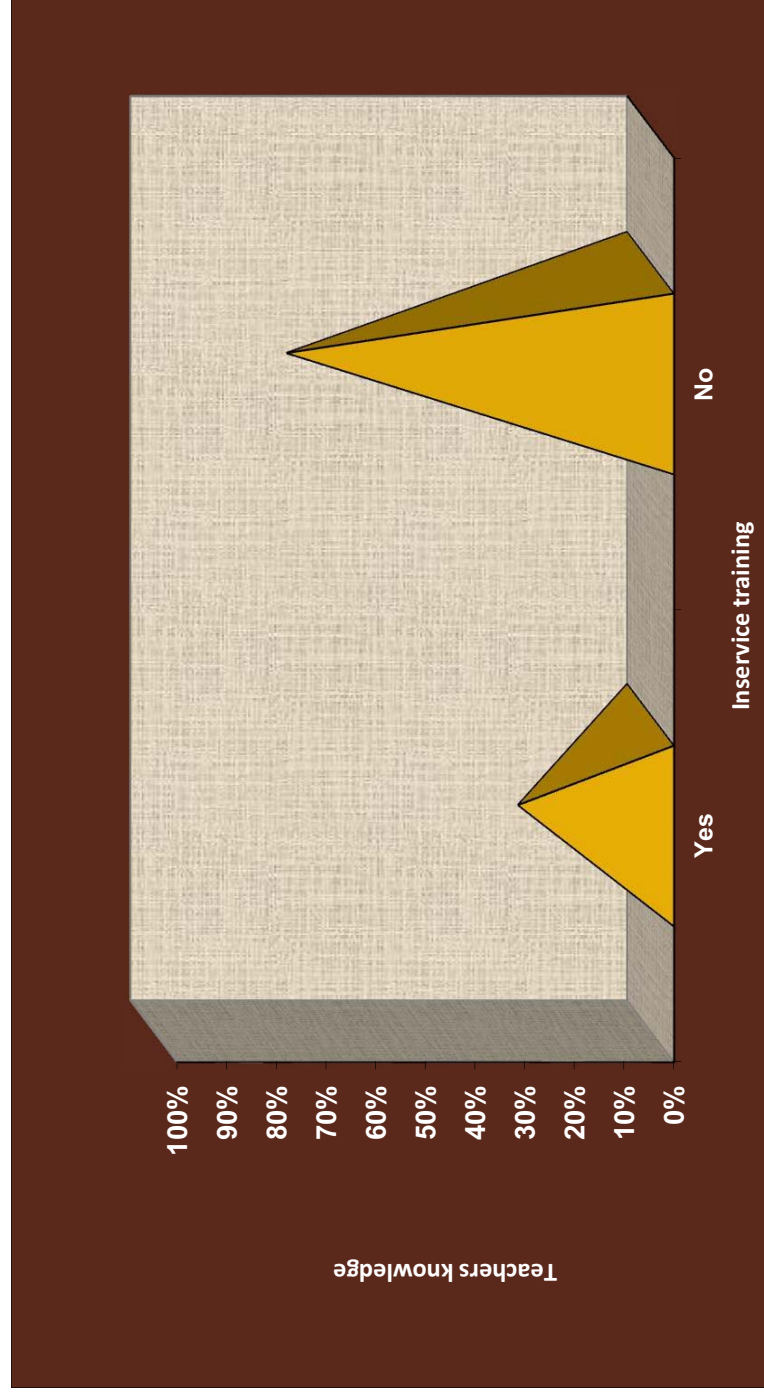


Fig 4.7 Attended in service training on learning disorder wise distribution of primary school teachers

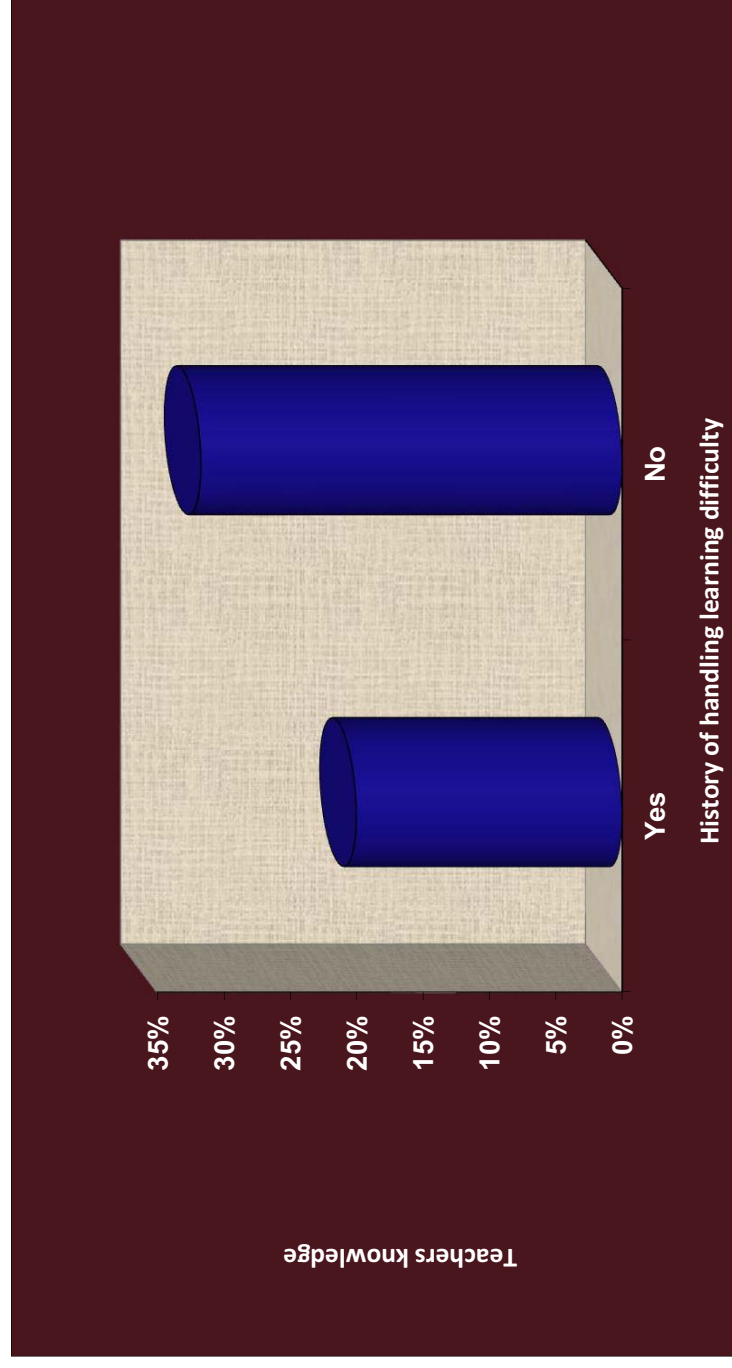


Fig 4.8 History of handling learning disability in classroom wise distribution of primary school teachers

SECTION - II

Table 4.2: Domain wise pre test knowledge score on early identification of children with learning disability

N= 60					
Domains	No. of items	Min –Max score	Mean	D	% of mean score
Concepts of LD	3	0 -3	.28	.74	42.7
Types of learning disability	4	0 -4	.63	.61	40.8
Early identifying signs and symptoms of LD	7	0 -7	2.67	.05	38.1
Management of LD	6	0 -6	2.03	.84	33.8
Overall	20	0 -20	7.62	.61	38.1

Table 4.2 shows each domain wise assessment of knowledge of the primary school teachers before implementing psycho education module regarding early identification of children with learning disability. Teachers had more score in Concepts of LD (42.7%) and minimum score in Management of LD (33.8%). Overall, they had 38.1% of score.

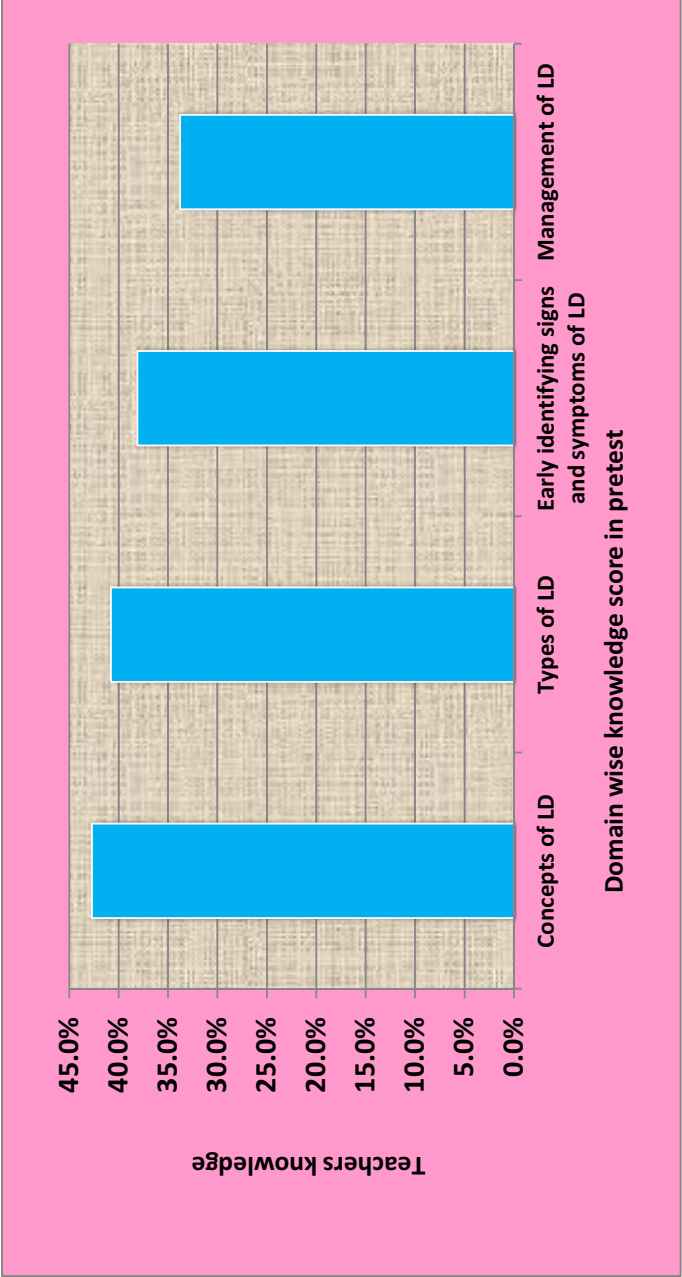


Fig 4.9 Pretest domain wise of knowledge score of primary school teachers

Table 4.3: Level wise knowledge score in pretest

Level of knowledge	Frequency	In %
Inadequate	6	10.0
Moderate	51	85.0
Adequate	3	5.0
Excellent	0	0.0
Total	60	100

Table 4.3 shows pre test knowledge of the primary school teachers before implementing psycho education module regarding early identification of children with learning disability. In general, 10.0% of the teachers had inadequate knowledge score, 85.0% of them had moderate knowledge score, and 5% of them had adequate score.

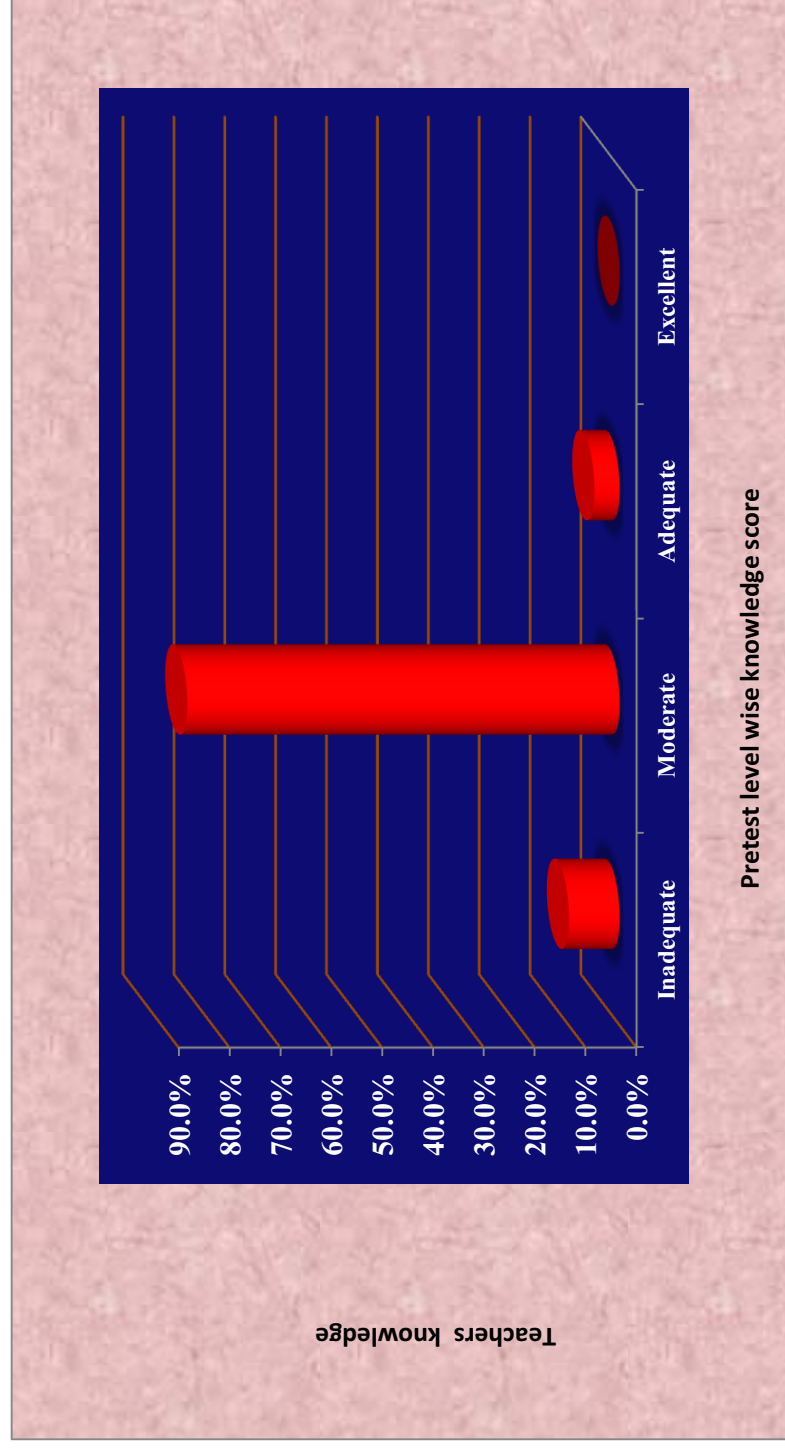


Fig 4.10 Pretest level wise knowledge score of the primary school teachers

Table 4.4: Domain wise and level wise knowledge score in pretest*N= 60*

Knowledge score	Inadequate		Moderate		Adequate		Excellent	
	<i>Frequency</i>	<i>In %</i>	<i>Frequency</i>	<i>In %</i>	<i>Frequency</i>	<i>In %</i>	<i>Frequency</i>	<i>In %</i>
Concepts of LD	4	6.7	52	86.6	4	6.7	0	0.0
Types of LD	4	6.7	52	86.6	4	6.7	0	0.0
Early identifying signs and symptoms of LD	7	11.7	51	85.0	2	3.3	0	0.0
Management of LD	9	15.0	49	81.7	2	3.3	0	0.0
Overall	6	10.0	51	85.0	3	5.0	0	0.0

Table 4.4 shows each domain wise and level wise assessment of the pretest level of knowledge score

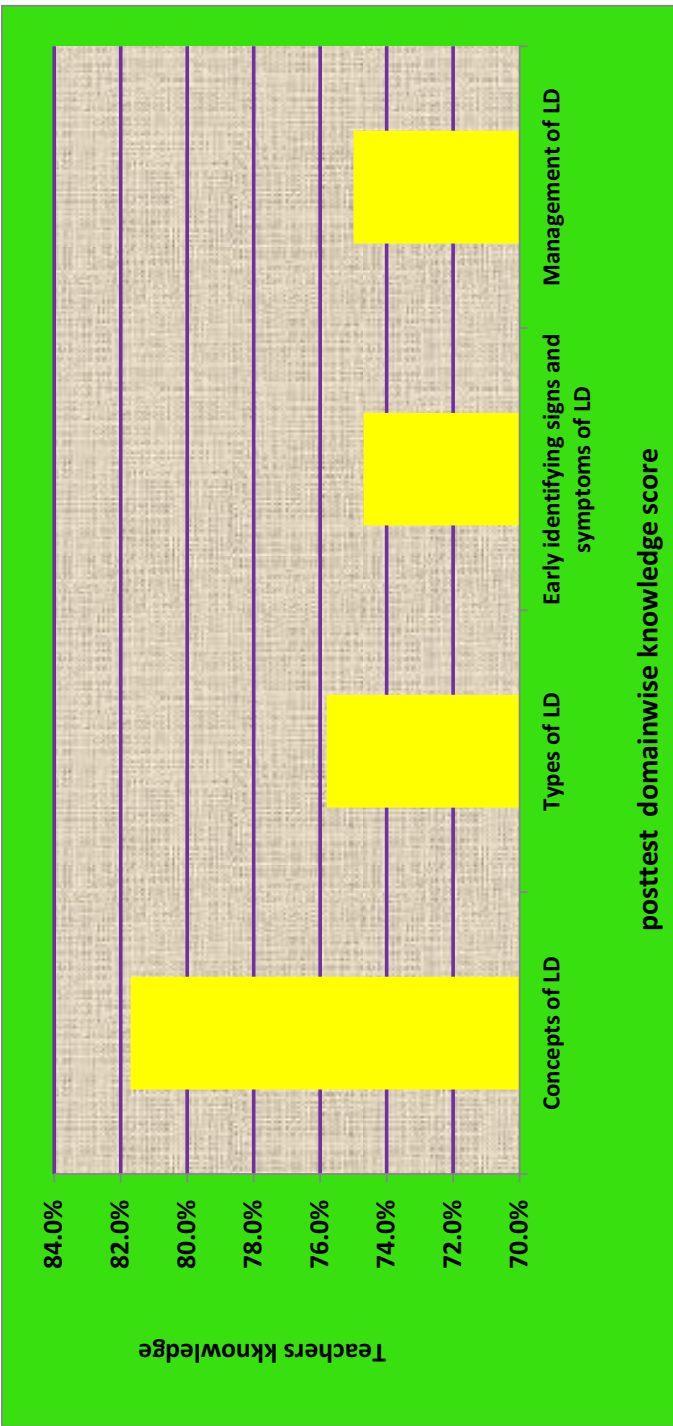
SECTION - III

Table4. 5: Domain wise knowledge score in posttest*N= 60*

Domains	No. of items	Min –Max score	Mean	SD	% of mean score
Concepts of LD	3	0 -3	2.45	.50	81.7
Types of LD	4	0 -4	3.03	.94	75.8
Early identifying signs and symptoms of LD	7	0 -7	5.23	1.24	74.7

Management of LD	6	0 -6	4.50	1.05	75.0
Overall	20	0 -20	15.22	1.76	76.1

Table 4.5 shows each domain wise assessment of knowledge of the primary school teachers after implementing psycho education module regarding early identification of children with learning disability. Teachers had more score in concepts of LD (81.7%) and minimum score in early identifying signs and symptoms of LD (74.7%). Overall, they had 76.1% of score.

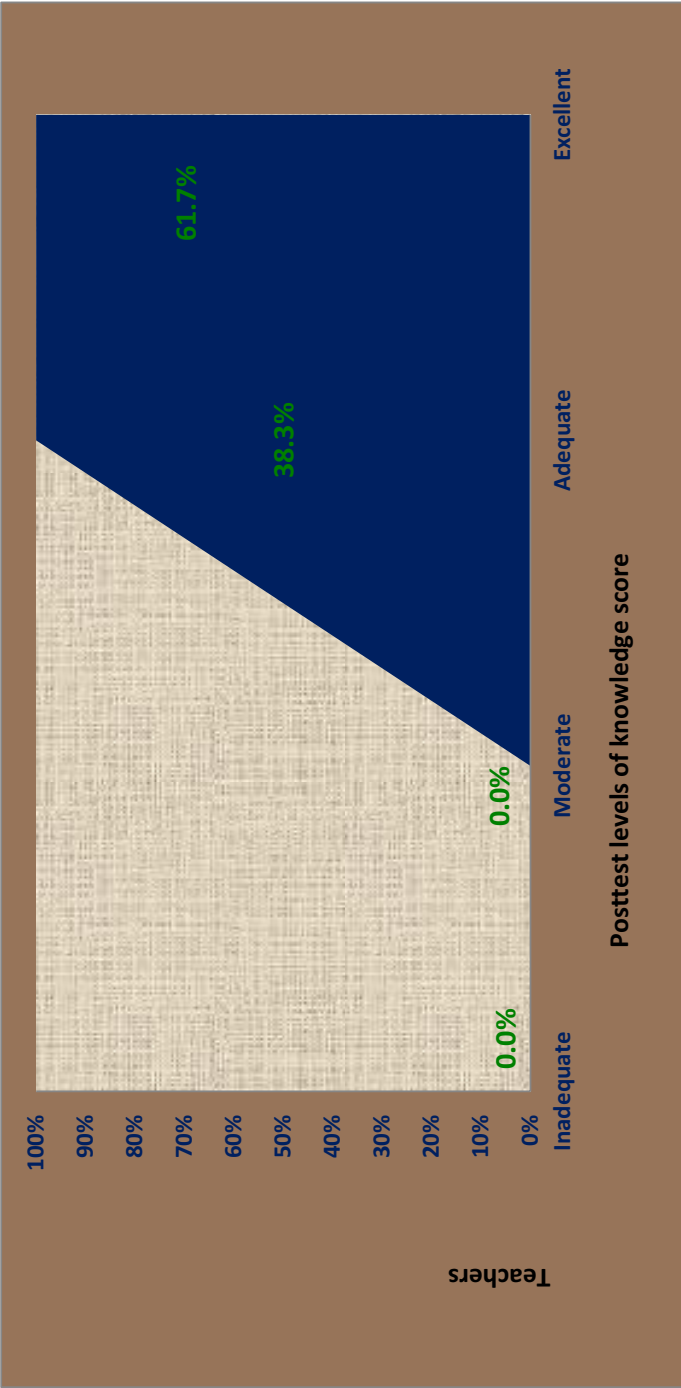


4.11 Domain wise posttest knowledge score of the primary school teachers

Table 4.6: Level wise Percentage of Knowledge Score in Post Test

Level of knowledge	Frequency	In %
Inadequate	0	0.0
Moderate	0	0.0
Adequate	23	38.3
Excellent	37	61.7
Total	60	100

Table 4.6 shows posttest level knowledge of the primary school teachers after implementing psycho education module regarding early identification of children with learning disability. In general, none of the teachers is having inadequate knowledge score, none of them is having moderate knowledge score, 38.3% of them had adequate score, and 61.7% of them had excellent knowledge score.



4.12 Level wise posttest knowledge score of the primary school teachers

Table4. 7. Domain wise and level wise knowledge score in posttest*N= 60*

Knowledge score	Inadequate		Moderate		Adequate		Excellent	
	<i>Frequency</i>	<i>In %</i>	<i>Frequency</i>	<i>In %</i>	<i>Frequency</i>	<i>In %</i>	<i>Frequency</i>	<i>In %</i>
Concepts of LD	0	0.0	0	0.0	33	55	27	45
Types of LD	0	0.0	0	0.0	34	56.7	26	43.3
Early identifying signs and symptoms of LD	0	0.0	0	0.0	39	65	21	35.0
Management of LD	0	0.0	0	0.0	42	70	28	46.7
Overall	0	0.0	0	0.0	37	61.7	23	38.3

Table 4.7 shows each domain wise and level wise assessment of the posttest level of knowledge score

SECTION - IV

Table 4.8: Domain wise comparison of mean knowledge score

	knowledge score				Mean Difference	Student's Paired t-test
	<i>Pretest</i>		<i>Posttest</i>			
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
Concepts of LD	1.28	.74	2.45	.50	1.17	t=11.51 P=0.001
Types of learning disability	1.63	.61	3.03	.94	1.40	t=9.92 P=0.001
Early identifying signs and symptoms of LD	2.67	1.05	5.23	1.24	2.56	t=12.52 P=0.001
Management of LD	2.03	.84	4.50	1.05	2.47	t=13.69 P=0.001
Overall	7.62	1.61	15.22	1.76	7.60	t=25.10 P=0.001

* Significant at $P \leq 0.05$ ** highly significant at $P \leq 0.01$ *** very high significant at $P \leq 0.001$

Table No 4.8 compares pretest and posttests mean knowledge score.

Considering concepts of LD aspects, in pretest, teachers had 1.28 score where as in posttest they had 2.45 score, so the difference is 1.17. This difference between pretest and posttest is large and it is statistically significant.

Considering types of learning disability aspects, in pretest, teachers had 1.63 score where as in posttest they had 3.03 score, so the difference is 1.40. This difference between pretest and posttest is large and it is statistically significant.

Considering early identifying signs and symptoms of LD aspects, in pretest, teachers had 2.67 score where as in posttest they had 5.23 score, so the difference is 2.56. This difference between pretest and posttest is large and it is statistically significant.

Considering management of LD aspects, in pretest, teachers had 2.03 score where as in posttest they had 4.50 score, so the difference is 2.47. This difference between pretest and posttest is large and it is statistically significant.

Considering overall aspects, in pretest, teachers had 7.62 score where as in posttest they had 15.22 score, so the difference is 7.6. This difference between pretest and posttest is large and it is statistically significant.

Statistical significance was calculated by using student's paired 't' test.

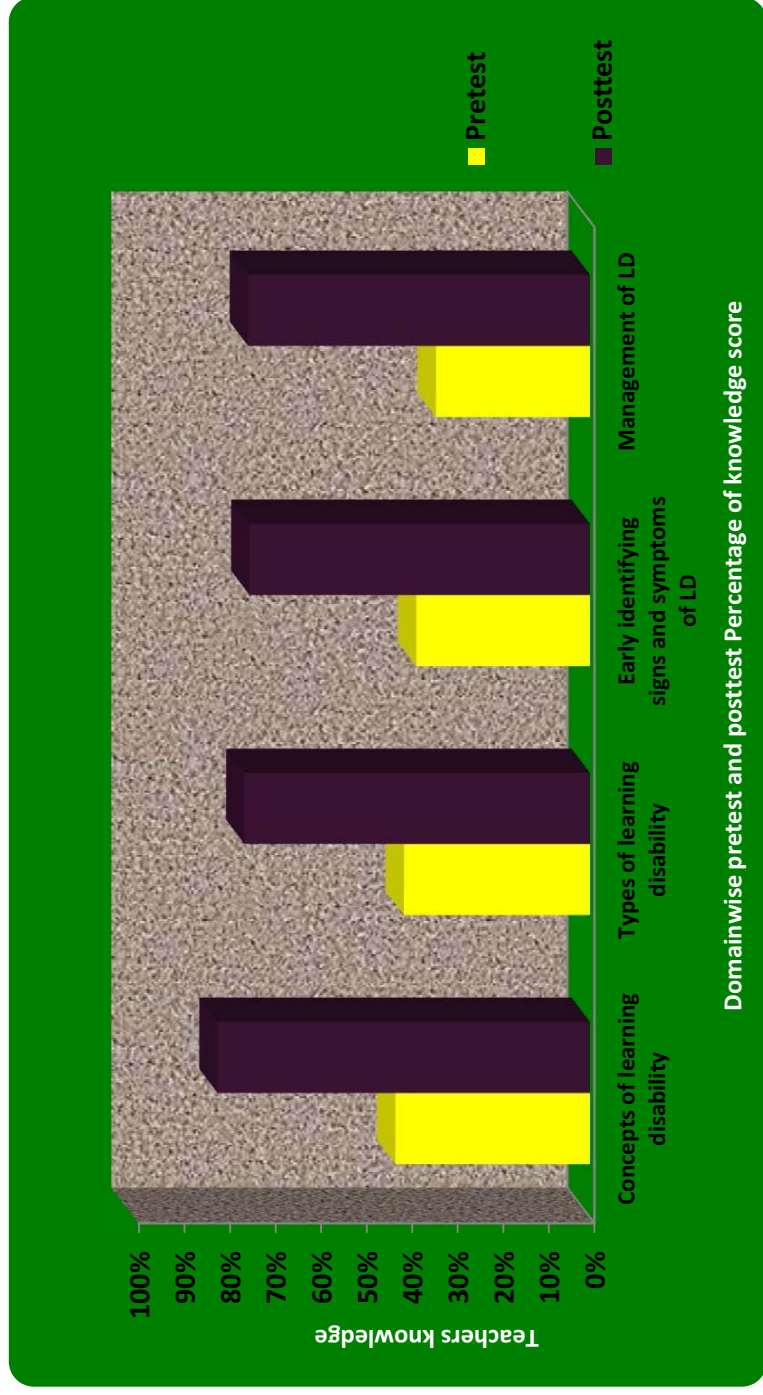


Fig. 4.13 Comparison of domain wise pretest and posttest knowledge score of the primary school teachers

Table4. 9: Comparison of overall Knowledge Score

	Frequency	Mean \pm SD	Mean Difference	Student's paired t-test
Pretest	60	7.62 \pm 1.61	7.60	t=25.10 P=0.001*** significant
posttest	60	15.22 \pm 1.76		

*** very high significant at $P \leq 0.001$

Table 4.9 shows the comparison of overall mean knowledge score between pretest and posttest.

In the overall pretest score among primary school teachers are 7.62 score with standard deviation of 1.61. Moreover, the posttest they had scored 15.22 with standard deviation of 1.76. Therefore, the difference is 7.60.

This difference between pretest and posttest knowledge score is large and it is statistically significant. Differences between pretest and posttest score analyzed using paired t-test.

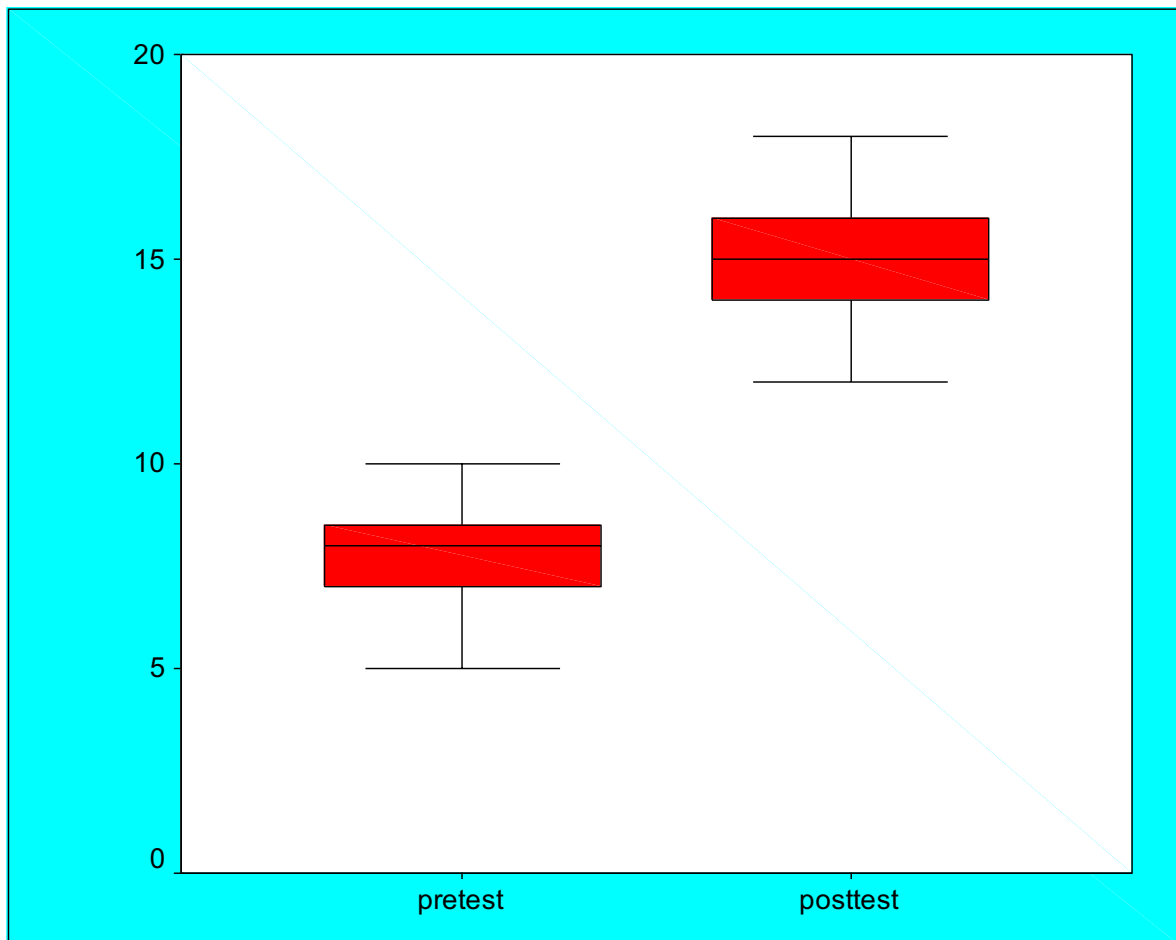


Fig 4.14: Box-plot shows the comparison of mean pretest and posttest knowledge scores

Table4 .10: Level wise comparison of pretest and posttest knowledge score

Level of knowledge	Pretest		Posttest		Chi square test
	<i>Frequency</i>	<i>In %</i>	<i>Frequency</i>	<i>In %</i>	
Inadequate	6	10.0	0	0.0	$\chi^2=109.38$ P=0.001
Moderate	51	85.0	0	0.0	
Adequate	3	5.0	23	38.3	
Excellent	0	0.0	37	61.7	
Total	60	100	60	100	

Table 4.10 projected the comparison of pretest and posttest level of knowledge score among primary school teachers.

Before Administration of psycho education module, 10.0% of the teachers had inadequate knowledge score, 85.0% of them had moderate knowledge score, and 5% of them had adequate score.

After Administration of the psycho education module, none of the teachers is having inadequate knowledge score, none of them is having moderate knowledge score, 38.3% of them had adequate score, and 61.7% of them had excellent score. Chi-square test had used to test the statistical significance

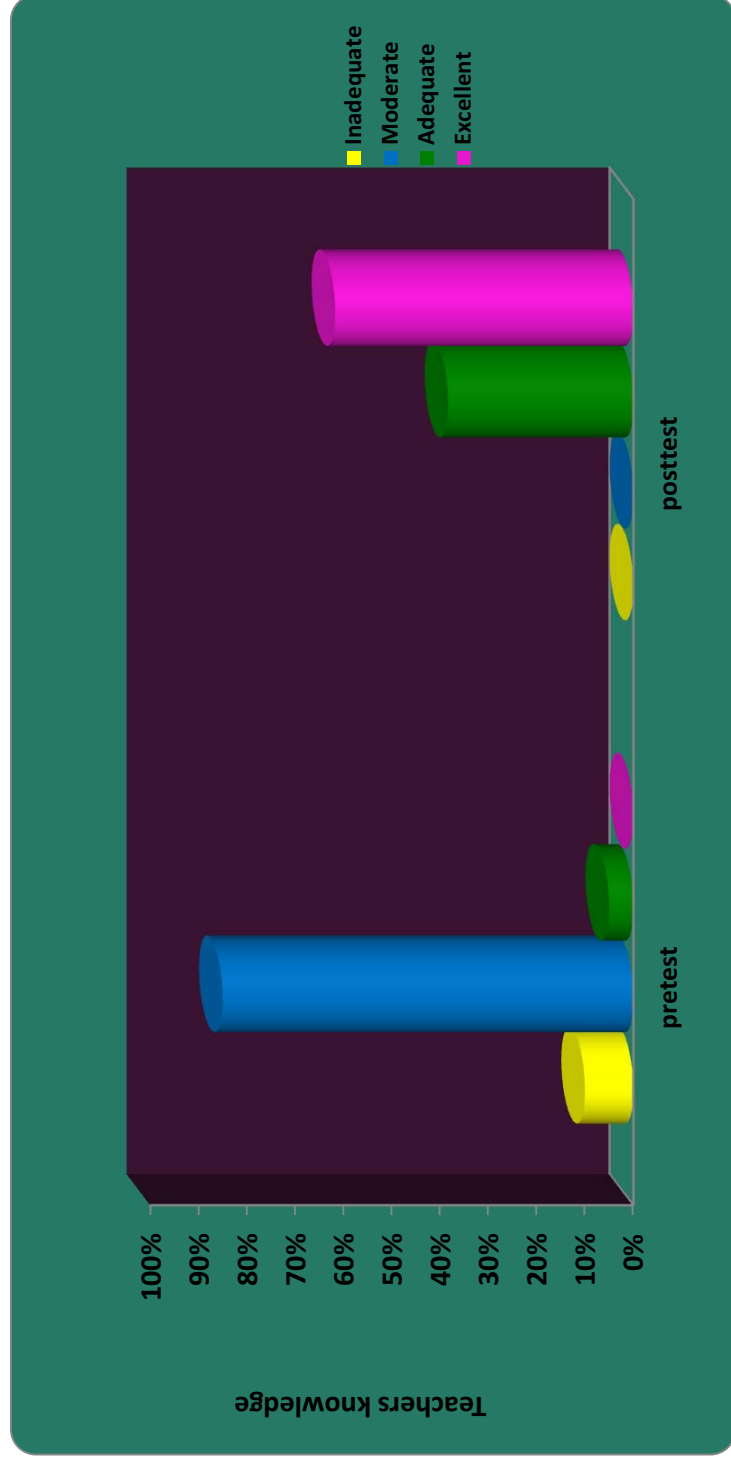


Fig 4.15 Comparison of level wise pretest and posttest knowledge score of the primary school teachers

Table 4. 11. Comparison of overall knowledge score

	<i>Max score</i>	<i>Mean knowledge score</i>	<i>Mean Difference in knowledge score with 95% CI.</i>	<i>Percentage of knowledge gain score with 95% CI</i>
Pretest	20	7.62	7.60(6.99 – 8.21)	38.0 (34.9 –41.0)
Posttest	20	15.22		

Table 4.11 shows the comparison of overall knowledge score between pretest and posttest.

On an average, in posttest, teachers gained 38% of knowledge score after implementing psycho education module regarding early identification of children with learning disability. Differences between pretest and posttest score was analyzed using percentage with 95% CI and mean difference with 95% CI.

Table 12: Effectiveness of psycho education module

Domains	Pretest	Posttest	% of knowledge Gain score
Concepts of LD	42.7	81.7	39.0
Types of LD	40.8	75.8	35.0
Early identifying signs and symptoms of LD	38.1	74.7	36.6
Management of LD	33.8	75.0	41.2
Overall	38.1	76.1	38.0

Table12 shows each domain wise knowledge score gain

In concepts of LD aspects, teachers had gained 39.0% of knowledge score

In types of learning disability aspect, teachers had gained 35.0% of knowledge score

In early identifying signs and symptoms of LD aspect, teachers had gained 36.6% of knowledge score

In management of LD aspect, teachers had gained 41.2% of knowledge score

Overall, teachers had gained 38.0% knowledge score when comparing pretest and posttest knowledge score.

This shows the effectiveness of psycho education module.

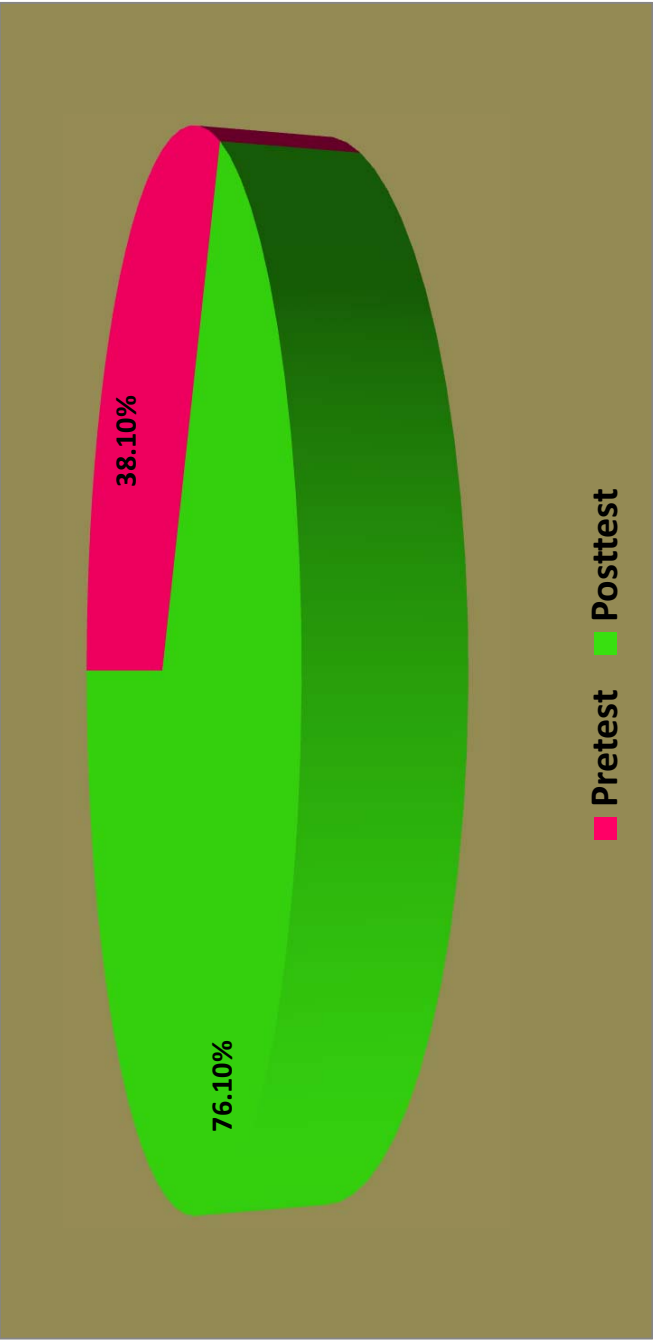


Fig 4.16 Effectiveness of psycho education module

SECTION – V

Table 4.13 Association between level of knowledge gain score and demographic variables

	Demographic variables		Level of knowledge gain score				Total	Chi square test
			Below average(≤ 7.6)		Above average(> 7.6)			
			Frequency	In %	Frequency	In %		
1.	Age in years	20 -30	3	75.0	1	25.0	4	$\chi^2=6.00$ $p=0.05^*$ $DF=2$
		31 -40	20	60.7	13	39.3	33	
		> 40	7	30.4	26	69.6	23	
2.	Gender	Male	6	60.0	4	40.0	10	$\chi^2=0.48$ $p=0.49$ $DF=2$
		Female	24	48.0	26	52.0	50	
3.	Educational qualification	Teachers training program	19	59.4	13	40.6	32	$\chi^2=2.41$ $p=0.12$ $DF=2$
		B. Ed	11	39.3	17	60.7	28	
4.	Years of experience	3 - 5	2	100.0			2	$\chi^2=6.39$ $p=0.05^*$ $DF=2$
		5 - 10	9	75.0	3	25.0	12	
		> 10	19	41.3	27	58.7	46	
5.	Marital status	Married	28	48.3	30	51.7	58	$\chi^2=2.06$ $p=0.15$ $DF=2$
		Unmarried	2	100.0			2	
6.	Had child psychology in curriculum	Yes	28	49.1	29	50.9	57	$\chi^2=0.35$ $p=0.55$ $DF=2$
		No	2	66.7	1	33.3	3	
7.	Had attended in service education on problems of learning	Yes	4	25.0	12	75.0	16	$\chi^2=5.45p=0.02^*$ $DF=2$
		No	26	59.1	18	40.9	44	
8.	Had any history of handling learning disabilities in your class room	Yes	3	100.0			3	$\chi^2=3.15$ $p=0.07$
		No	27	47.4	30	52.6	57	

Knowledge gain = post test score- pre test score

Table 4.13 shows the association between levels of knowledge gain scores with teacher's demographic variables. Elders, more service, and LD training attended had gained more knowledge score than others. Statistical significance was calculated using chi square test. Other demographic variables like gender, educational qualification,

marital status, had child psychology in curriculum, and history of handling learning disability children in their classroom had no significant.

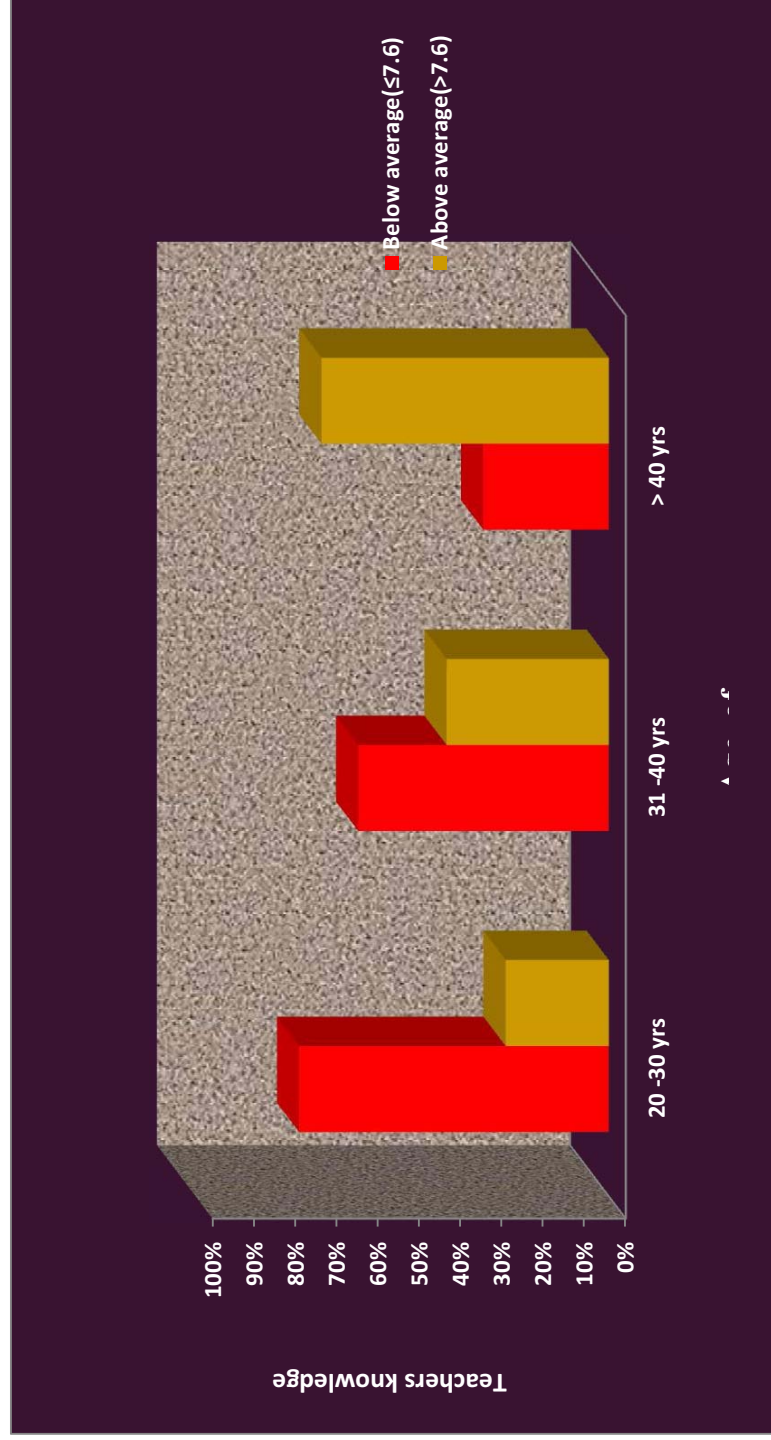


Fig 4.17 Association between level of knowledge gain score and age of teachers

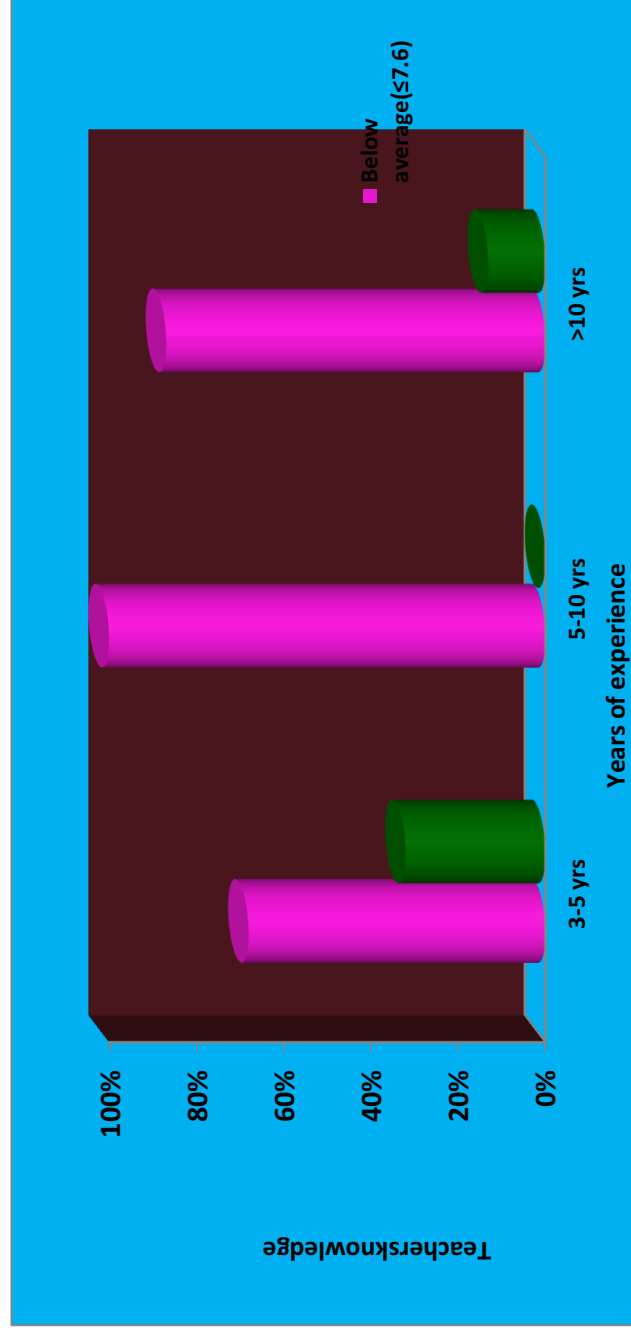


Fig 4.18 Association between level of knowledge gain score and years of experience

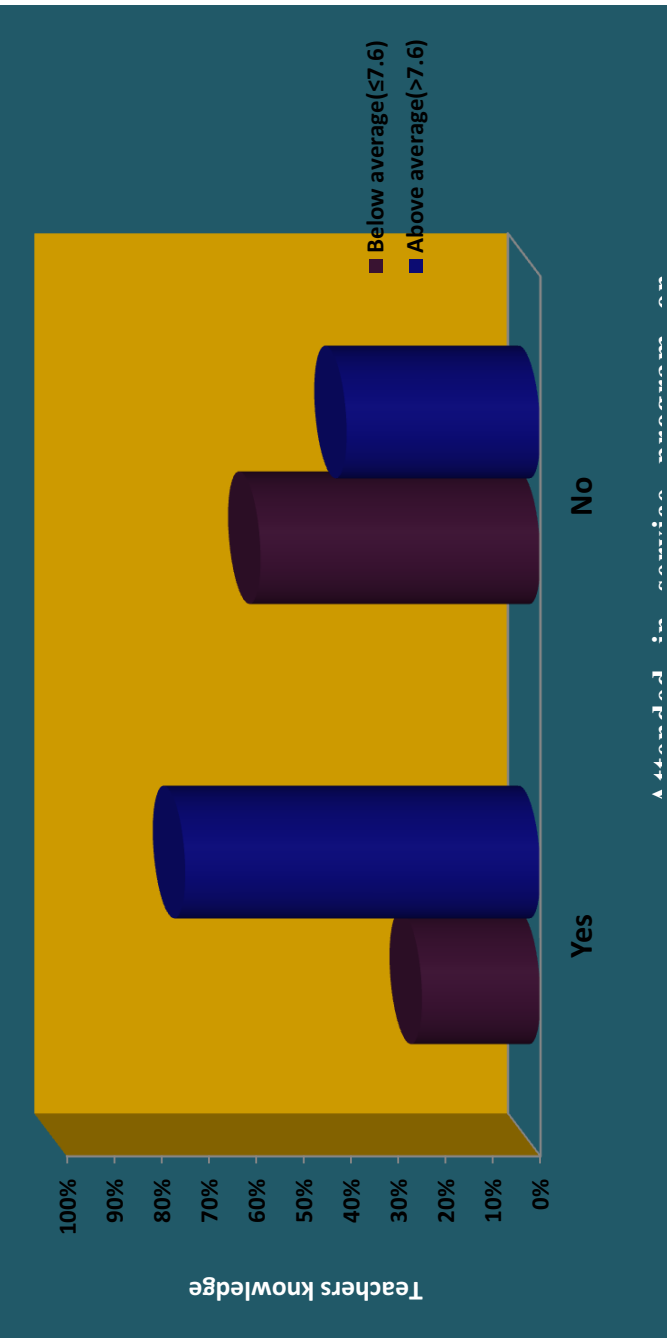


Fig 4.19 Association between level of knowledge gain score and in service training

CHAPTER – V

SUMMARY OF THE RESULTS

Major findings of the study

1. Findings of socio demographic variables of the primary school teachers

Highest percentage of primary school teachers (55%) were in the 31-40 years of age group

According to their gender, higher proportions (83.3%) of the primary school teachers were females.

More than half of the primary school teacher's educational qualification is teacher training course

Most of the primary school teachers (76.7%) had more than 7 years of teaching experience.

Majority of the primary school teachers were married (96.7%).

Higher proportions (95%) of the teachers had child psychology in their curriculum.

Higher proportions (73.3%) of the primary school teachers not attended in service program on problems of learning.

2. Findings of knowledge of primary school teachers regarding early identification of children with learning disability before administering psycho education module.

Before administering psycho education module, they had more knowledge pertaining to concepts of learning disability (42.7%) and minimum score in management of LD (33.8%). In addition, early identifying signs and symptoms of LD is 38.1%. Overall, they had 38.1% of score.

Each level wise assessment of knowledge of the primary school teachers before implementing psycho education module regarding early identification of children with learning disability shows that most of the teachers (85%) had moderate knowledge score 10% of the teachers had inadequate knowledge score, and 5% of them had adequate score.

3. Findings of knowledge of primary school teachers regarding early identification of children with learning disability after administering psycho education module.

In posttest domain wise knowledge score of the primary school teachers after implementing psycho education module depicted in table 4.5. It shows that teachers had more score in concepts of LD (81.7%) and almost equal scores in types of learning disability (75.8%), early identifying signs and symptoms of LD (74.7%) and management of LD (75%). Overall, they had 76.1% of score.

The post test level knowledge of the primary school teachers after implementing psycho education module regarding early identification of children with learning disability. In general, none of the teachers had inadequate knowledge score, none of them had moderate knowledge score, 38.3% of them had adequate score, and 61.7% of them had excellent knowledge score.

In comparing mean knowledge score the difference between pre test and posttest was large and it was statistically significant ($p = 0.001$). Overall knowledge score of teachers between pre test and posttest difference is 7.60. It is statistically significant.

By comparing pretest and post test level of knowledge regarding early identification of learning disability depicts that before psycho education

module, 10.0% of the teachers had inadequate knowledge score, 85.0% of them had moderate knowledge score and 5% of them had adequate score. After psycho education module, none of the teachers had inadequate knowledge score, none of them had moderate knowledge score, 38.3% of them had adequate score, and 61.7% of them had excellent score. Therefore, the posttest score was statistically very highly significant.

The comparison of overall knowledge score between pre test and posttest shows that in posttest, teachers had gained 38% of knowledge score after implementing psycho education module regarding early identification of children with learning disability. Differences between pretest and posttest score was analyzed using percentage with 95% CI and mean difference with 95% CI.

4. Findings of effectiveness of psycho education module regarding early identification of children with learning disability.

Each domain wise knowledge score gain depicts that in concepts of learning disability aspects teachers had gained 39% of knowledge score, in types of learning disability aspect teachers had gained 35% of knowledge score, in early identifying signs and symptoms of LD aspect teachers had gained 36.6% of knowledge score, in management of LD aspect teachers are gained 41.2% of knowledge score. Overall, teachers had gained 38% of knowledge score when comparing pretest and posttest knowledge score. This shows the effectiveness psycho education module.

5. Findings of association of the knowledge with the selected demographic variables.

In the association between level of knowledge gain and their demographic variables shows that variables like age, year of experience and teachers attended in service program on problems with learning had gained more knowledge than others and statistically significant.

CHAPTER – VI

DISCUSSION

The discussion chapter deals with description of sample characteristics and objectives of the study. The aim of the study was to evaluate the effectiveness of psycho education module on knowledge regarding early identification of children with learning disabilities among teachers in selected schools, Chennai.

The findings had discussed under the following headings:

- ❖ Demographic variables of primary school teachers.
- ❖ Knowledge of primary school teachers before implementing psycho education module regarding early identification of children with learning disability.
- ❖ Knowledge of the primary school teachers after implementing psycho education module regarding early identification of children with learning disability.
- ❖ Effectiveness of psycho education module among primary school teachers by comparing pretest and posttest scores.
- ❖ Association between posttest scores with selected demographic variables

Objective I: To find out the demographic variables of primary school teachers.

Distribution of primary school teachers according to their age group depicts that, the highest percentage (55%) of teachers were in the age group of 31-40 yrs. least percentage of teachers (6.7%) were in the group 20-30 years of age.

Distribution of primary school teachers according to their sex depicts that, the most of the teachers (83.3%) were females and 16.7% were males.

This finding is consistent with the report given by **Sarva Siksha Abhiyan** (2002) in the total number of primary school teachers in Tamil Nadu females are constituting 73.99%.

Distribution of primary school teachers according to their marital status shows that, the highest percentage (96.7%) of teachers were married and 3.3% of teachers were unmarried. No one was divorced or widow.

Distribution of primary school teachers according to their number of years of teaching experiences shows that, most of them (76.7%) were having more than 7yrs of experience, 20% of teachers were having 4-7 yrs of experience and only 3.3%of teachers having 2 years of experience.

Distribution of primary school teachers according to their exposure of in service education on problems of learning depicts that, around most of them (73.3%) of teachers were not attended any in service education on learning problems. Only 26.7% of teachers were attended any in service education on learning problems.

Objective II: To assess the knowledge of the primary school teachers before implementing psycho education module regarding early identification of children with learning disability

Domain wise assessment of knowledge of the primary school teachers before implementing psycho education module regarding early identification of children with learning disability had done. Teachers had more score in concepts of LD (42.7%) and minimum score in management of LD (33.8%).Overall they had 38.1% of score.

Level wise assessment of the pretest level of knowledge score shows that 10.0% of the teachers had inadequate knowledge score, 85.0% of them had moderate knowledge score, and 5% of them had adequate score.

This finding is more or less similar with the study conducted by **Anderson David, W., (2007)** 82% had moderately adequate practice and 18% of teachers had adequate practice on learning disabilities.

Objective III: To evaluate the knowledge of the primary school teachers after implementing psycho education module regarding early identification of children with learning disability.

Domain wise assessment of knowledge of the primary school teacher after implementing psycho education module regarding early identification of children with learning disability had done. Teachers had more score in concepts of LD (81.7%) and minimum score in early identifying signs and symptoms of LD (74.7%). Overall, they had 76.1% of score.

Level wise assessment of the pretest level of knowledge score shows, in general, none of the teachers had inadequate knowledge score, none of them had moderate knowledge score, 38.3% of them had adequate score, and 61.7% of them had excellent knowledge score.

Objective IV: To evaluate the effectiveness of psycho education module among primary school teachers by comparing pretest and post test scores.

Considering concepts of LD aspects, in pretest, teachers had 1.28 score where as in posttest, they had 2.45 score, so the difference is 1.17. This difference between pretest and posttest is large and it is statistically significant.

Considering types of learning disability aspects, in pretest, teachers had 1.63 score where as in posttest they had 3.03 score, so the difference is 1.40. This difference between pretest and posttest is large and it is statistically significant.

Considering early identifying signs and symptoms of LD aspects, in pretest, teachers had 2.67 score where as in posttest they had 5.23 score, so the difference is 2.56. This difference between pretest and posttest is large and it is statistically significant.

Considering management of LD aspects, in pretest, teachers had 2.03 score where as in posttest they had 4.50 score, so the difference is 2.47. This difference between pretest and posttest is large and it is statistically significant.

Considering overall aspects, in pretest, teachers had 7.62 score where as in posttest they had 15.22 score, so the difference is 7.6. This difference between pretest and posttest is large and it is statistically significant.

Statistical significance has calculated by using student's paired 't'test.

The knowledge level of primary school teachers in posttest had mean score of 15.22 ± 1.76 that was higher, compared to the mean score of 7.62 ± 1.61 in pretest. The paired 't'test value of knowledge scores was 25.10. It is significant at $p = 0.001$ level. Differences between pretest and posttest score were analyzed using paired t-test.

Before psycho education module, 10.0% of the teachers had inadequate knowledge score, 85.0% of them had moderate knowledge score, and 5% of them had adequate score.

After the psycho education module, none of the teachers had inadequate knowledge score, none of them had moderate knowledge score, 38.3% of them had adequate score, and 61.7% of them had excellent score. Chi-square test was used to test the statistical significance.

Table12 shows each domain wise knowledge score gain. In concepts of LD aspects teachers are gained 39% of knowledge score, in types of learning

disability aspect teachers are gained 35% of knowledge score, in early identifying signs and symptoms of LD aspect teachers are gained 36.6% of knowledge score, and in management of LD aspect teachers are gained 41.2% of knowledge score. Overall, teachers are gained 38.0% knowledge score when comparing pretest and posttest knowledge score. This shows the effectiveness psycho education module

Hence, the research hypotheses, the mean posttest knowledge scores are significantly higher than the mean pretest knowledge scores on early identification of children with learning disabilities among teachers had proved.

This finding is consistent with the study conducted by **Lalitha, (2009)** stated that the mean posttest knowledge score 28.78 ± 5.41 is higher than the mean pretest score 17.5 ± 4.19

Objective V: Determine the association between posttest knowledge scores with their selected demographic variables

Chi-square values calculated to determine the association between post test knowledge scores of primary school teachers with their demographic variables. There is association between demographic variables such as age, years of experience and teachers those who attended in service training on learning problems. Teachers who were aged >40 years, with working experience >10 years and who had training in learning problems are gained more scores.

Hence, the research hypothesis there is association between the demographic variables and posttest knowledge score on early identification of children with learning disabilities among teachers had proved.

Similar findings were observed in the study conducted by **Moothedath and Vrandha (2015)** results indicated that elder teachers and those who had more years of experience had more gain knowledge score than others. These

demographic variables shows statistical significance of $P < 0.05$ in the chi-square test.

CHAPTER VII

CONCLUSION AND RECOMMENDATIONS

“Arriving at one goal is the starting point to another.” - John Dewey

7.1. Implications of the study

The findings of the study have implications for nursing education, nursing practice, nursing research, and nursing administration.

7.1.1. Nursing education:

- ❖ Nursing curriculum has to focus the nursing students to develop knowledge and skills in identifying and treating disease among schoolchildren.
- ❖ Students and nurses must be prepared with innovative methods and it help to hold the interest on the health of the children in public and to become an effective school health nurse.
- ❖ This study emphasis the need of educating the nursing personnel through in-service or continuing education to update their knowledge and skills in educating the primary school teachers and parents regarding learning disabilities.
- ❖ Nurses at the post graduate level need to develop their skill in preparing psycho education material.
- ❖ The nursing students in clinical practice, home visits, and school health programs can utilize the materials especially the psycho education module, booklet, and pamphlet which are prepared for this study.

7.1.2. Nursing practice

- ❖ Along with the changing scenario of health care delivery system, the emphasis had shifted from care-oriented approach to preventive approach. The study revealed that there is a need of knowledge regarding early

identification of children with learning disability among primary school teachers.

- ❖ Psychiatric nurses can conduct psycho education program regarding learning disability among parents and teachers.
- ❖ Training program can conducted for teachers regarding identification of other psychiatric illnesses such as mental retardation, attention deficit hyperactive disorder, and behavioral problems.

7.1.3. Nursing research:

- ❖ Research provides nurses credibility to influence decision making, policy and protocol formulation regarding early identification of children with learning disability among primary school teachers.
- ❖ The findings of the study suggests that educators and administrators should encourage nurses to read, discuss and conduct research studies so as to enable the nurses to make data based decision and teaching than intuitive decisions.
- ❖ Findings of the study help to expand the body of professional knowledge upon which further research can be conducted.
- ❖ The study will be a valuable reference material for future investigators.

7.1.4. Nursing administration

- ❖ Nursing administration should take interest in motivating the nursing personnel to organize seminars, workshop, conference, and training program on early identification of learning disability.
- ❖ The study will help nursing administrative authority to recognize the need for conducting awareness program on learning disabilities.
- ❖ Administration in both private and government sectors should take initiative action to update the knowledge of health personnel regarding school health by in- service education.
- ❖ Provision should be made for money in budget in order to identify the learning disabilities of schoolchildren and to conduct health awareness program.
- ❖ Multisectorial approach will be beneficial in treating learning disabilities for which nursing administration should have policy guidelines.

7.2. Limitations

- ❖ The study was limited to the selected corporation primary schools
- ❖ Small sample size
- ❖ Limited period of time

7.3. Recommendations for further study:

- ❖ A similar study can be replicated on large samples to generalize findings.
- ❖ A comparative study can be conducted between urban and rural schoolteachers.
- ❖ A comparative study can be conducted between government and private school teachers.
- ❖ A comparative study can be conducted between regular and special educators.
- ❖ Replication of the study can be conducted by using innovative teaching methods on early identification of children with learning disability.

The study concluded that the teacher's role in early identification of children with learning disability is mandatory.

In India, attentions to the special educational needs of children with learning disabilities had been recognizing recently. The SSA program which mandates education for all, also focuses on mainstreaming of children with learning disabilities.

In spite of provision of special concessions for children with disabilities, learning disabilities included, by the CBSE, it is a well-known fact that a majority of children with learning disabilities suffer a stigma as the schools fail to follow these. The crux of the situation lies on the lack of knowledge of the school authorities and the teachers regarding the entity of learning disability. Awareness of government provisions for children with LD is a farfetched idea.

In this study investigator found that, the existing knowledge of primary school teachers on learning disabilities was inadequate and moderately adequate. Through psycho education, teachers had gained adequate knowledge (38.3%) and excellent knowledge (61.7%) regarding early identification of children with learning disability. The increase in knowledge level reflects the effectiveness of psycho education module.

Therefore, nursing educators should collaborate with policy makers of education department and conduct teaching program to enhance the knowledge about learning disability and other childhood problems.

CERTIFICATE FOR CONTENT VALIDITY

This is to certify that the tool constructed by Ms. Amali Rani.B, M.Sc(N) II year, College of Nursing, Madras Medical College which is to be used in her study titled "A study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai" has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed in do the research.


SENIOR CIVIL SURGEON
INSTITUTE OF MENTAL HEALTH
KILPAUK, CHENNAI 10
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NAME : DR. V. Venkatesh Malhan Kumar
DESIGNATION: Associate professor
COLLEGE : Madras Medical college

PLACE: Chennai

DATE:

CERTIFICATE FOR CONTENT VALIDITY

This is to certify that the tool constructed by Ms. Amali Rani.B, M.Sc(N) II year, College of Nursing, Madras Medical College which is to be used in her study titled "A study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai" has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed in do the research.


SIGNATURE WITH SEAL

NAME : MRS. CATHERINE BABY SUHASINI

DESIGNATION: LECTURER

COLLEGE : MADHA COLLEGE OF NURSING



PLACE: CHENNAI - 69

DATE: 15-07.15

CERTIFICATE FOR CONTENT VALIDITY

This is to certify that the tool constructed by Ms. Amali Rani.B, M.Sc(N) II year, College of Nursing, Madras Medical College which is to be used in her study titled "A study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai" has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed in do the research.



SIGNATURE WITH SEAL

NAME : H. Vijayalakshmi.
DESIGNATION: Professor.
COLLEGE : Apollo College of Nursing.


PLACE: Chennai.

DATE: 12.08.2015.



CERTIFICATE FOR CONTENT VALIDITY

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B. SUDHAKARAN, M.A., M.Phil(Cl.Psy),
SIGNATURE WITH SEAL
Assistant Professor of Psychology cum
Clinical Psychologist,
Institute of Mental Health, Chennai-10.

NAME : B. SUDHAKARAN

DESIGNATION: Asst. Prof of Psychology cum Clinical Psychologist

COLLEGE : Institute of Mental Health

PLACE:

DATE:

From

Mrs. AMALI RANIB,
Msc.(Nursing) II year,
College of Nursing,
Madras Medical College,
Chennai-3.

To

The Chief Educational Officer,
Education Department,
Corporation of Chennai,
Chennai-03.

Through Proper Channel,

Respected Sir/Madam,

Sub: Requesting Permission to conduct a research study- reg

I Mrs.AMALI RANIB, studying Msc.(N), II Year, College of Nursing, Madras Medical College, kindly request you to grant me permission for the study proposed to conduct on the topic **"A STUDY TO ASSESS THE EFFECTIVENESS OF PSYCHOEDUCATION MODULE AMONG SELECTED PRIMARY SCHOOL TEACHERS REGARDING EARLY IDENTIFICATION OF CHILDREN WITH LEARNING DISABILITY IN SELECTED SCHOOLS AT CHENNAI."** to fulfil the requirement of data collection. I assure you that it will not interfere with routine activities of the study settings.

Thanking You,

Yours faithfully,


(AMALI RANIB)

*Princip
Ag
R. S. R.*
**PRINCIPAL
COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE
CHENNAI - 600 005**

Date: 01.07.2015

Place:Chennai-03

From

Mrs. AMALI RANI.B,
Msc.(Nursing) II year,
College of Nursing,
Madras Medical College,
Chennai-3.

To

The Deputy Commissioner of Education,
Corporation of Chennai,
Chennai-03.

Through Proper Channel,

Respected Sir/Madam,

Sub: Requesting Permission to conduct a research study- reg

I Mrs.AMALI RANI.B, studying Msc.(N), II Year, College of Nursing, Madras Medical College, kindly request you to grant me permission for the study proposed to conduct on the topic **"A STUDY TO ASSESS THE EFFECTIVENESS OF PSYCHOEDUCATION MODULE AMONG SELECTED PRIMARY SCHOOL TEACHERS REGARDING EARLY IDENTIFICATION OF CHILDREN WITH LEARNING DISABILITY IN SELECTED SCHOOLS AT CHENNAI."** to fulfil the requirement of data collection. I assure you that it will not interfere with routine activities of the study settings.

Thanking You,

Yours faithfully,

Amali Rani.B.

(AMALI RANI.B)

*read
from
11.07.15*
PRINCIPAL
COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE
CHENNAI - 600 002

Date: 01.07.2015

Place:Chennai-03

*E.O.
pls do the
needful* *17/7/15*

க. து.ந.க.எண்.அ/3/009654/2015

சென்னை மாநகராட்சி
கல்வித்துறை

சென்னை மாநகராட்சி கல்வி அலுவலர் அவர்களின் செயல்முறை ஆணை செ-3.
முன்னிலை:திருமதி.D.ரஞ்சினி, எம்.ஏ.எம்.எஸ்ஸிபிஎட், எம்.பி.ல்.

பொருள்: சென்னை மாநகராட்சி - கல்வித்துறை - சென்னை மாநகராட்சி
தொடக்கப்பள்ளியில் கற்றலில் குறைபாடு உடைய குழந்தைகளுக்கு
ஏற்படும் விளைவுகள் பற்றிய ஆய்வு மேற்கொள்வதற்கு அனுமதி
வழங்குவது - சம்மந்தமாக.

படிக்க: திருமதி. பி. அமலி ராணி, செவிலியர் இரண்டாம் ஆண்டு சென்னை
மருத்துவக்கல்லூரி, சென்னை - 600003. அவர்களின் கடிதநாள்:
01.07.2015.

ஆணை:-

சென்னை மாநகராட்சி கல்வித்துறையின் கீழ் இயங்கும் சென்னை
தொடக்கப்பள்ளிகளில் ஆசிரியர்களுக்கு திருமதி. பி. அமலி ராணி, செவிலியர் சென்னை
மருத்துவக்கல்லூரில் இரண்டாம் ஆண்டு பயிலும் தனியருக்கு கற்றலில் இயலாமை உள்ள
குழந்தைகளை ஆரம்ப நிலையில் கண்டறிந்து அறிவு சார்ந்த படிப்பினை மன நல கல்வி மூலம்
தொடக்கப்பள்ளி ஆசிரியர்களுக்கு வழங்கிய பின் ஏற்படும் விளைவுகள் குறித்த ஆய்வு 15.07.2015 முதல்
30.08.2015 வரை கீழ் காணும் பள்ளிகளுக்கு அனுமதி வழங்கப்படுகிறது.

வ. எண்	பள்ளிகளின் பெயர்கள்
1.	சென்னை தொடக்கப்பள்ளி, அண்ணாபிள்ளை தெரு
2.	சென்னை தொடக்கப்பள்ளி, ஏ. பி. ரோடு.
3.	சென்னை தொடக்கப்பள்ளி, வைக்காரன் தெரு,
4.	சென்னை தொடக்கப்பள்ளி, எக்மோர்.
5.	சென்னை தொடக்கப்பள்ளி, ஏழு கின்று.
6.	சென்னை தொடக்கப்பள்ளி, கொய்யா தோப்பு.
7.	சென்னை தொடக்கப்பள்ளி, வி.வி கோவில் தெரு.
8.	சென்னை தொடக்கப்பள்ளி, கே. கே. லைன்.
9.	சென்னை தொடக்கப்பள்ளி, அம்மையம்மாள் தெரு.
10.	சென்னை தொடக்கப்பள்ளி, ஸ்டாரன்ஸ் ரோடு.
11.	சென்னை தொடக்கப்பள்ளி, பெல்ஸ் ரோடு.
12.	சென்னை தொடக்கப்பள்ளி, சூரப்பா தெரு.
13.	சென்னை தொடக்கப்பள்ளி, திருவல்லிக்கேணி

எனவே மேற்காணும் தனியர் ஆய்வின் பொழுது பள்ளி தலைமை ஆசிரியர்களின்
அறிவுறுத்துதலின்படியும் மற்றும் பள்ளிக்கும் பள்ளிப்பணிக்கும் எவ்வித பாதிப்பும் ஏற்படாவண்ணம்
பார்த்துக்கொள்ளுமாறும் இம்முடிவு குறித்தவிவரங்களை கல்வித்துறைக்கு தெரிவிப்பதுடன் வேறுஎந்த
ஊடகங்களிலோ, பத்திரிக்கைகளிலோ, விமர்சனம் செய்க்கடாது என அறிவுறுத்தப்படுகிறது.

உதவி கல்வி அலுவலர்

கல்வி அலுவலர்

பெறுநர் :

திருமதி. பி. அமலி ராணி,
செவிலியர். இரண்டாம் ஆண்டு
மருத்துவக்கல்லூரி, சென்னை - 600003.

நுகல்:

மேற்காணும் பள்ளி தலைமை ஆசிரியர்கள்

APPENDIX – IV

PART-I

SOCIO DEMOGRAPHIC DATA

(Select the appropriate answer and put \surd in the corresponding column)

1. Age in years

a) 20-30

b) 31-40

c) >40

2. Gender

a) Male

b) Female

3. Educational qualification

a) Teachers training program

b) B. Ed

c) M. Ed

d) Any other specify

4. Years of experience

a) 3-5

b) 5-10

c) ≥ 10

5. Marital status

- a) Married
- b) Un married
- c) Divorced/Separated

6. Did you have child psychology in your curriculum?

- a) Yes
- b) No

7. Have you attended in service education on problems of learning?

- a) Yes
- b) No

8. Do you have any history of handling learning disability in your classroom?

- a) Yes
- b) No

PART II

KNOWLEDGE QUESTIONNAIRE

(Select the appropriate answer and put√in the corresponding column)

1. Learning process includes

- | | |
|--|--------------------------|
| a. Sensation, perception, concentration, imagery. | <input type="checkbox"/> |
| b. Attention, perception, imagery, and sensation. | <input type="checkbox"/> |
| c. Sensation, perception, imagery, symbolization, and conceptualization. | <input type="checkbox"/> |
| d. Sensation, attention, perception, imagery, symbolization and conceptualization. | <input type="checkbox"/> |

2. What is learning disability?

- | | |
|--|--------------------------|
| a. Subnormal intelligence | <input type="checkbox"/> |
| b. Memory disturbance | <input type="checkbox"/> |
| c. Inability to read and write | <input type="checkbox"/> |
| d. Disorder of attention and concentration | <input type="checkbox"/> |

3. What are the causes of learning disability?

- | | |
|--|--------------------------|
| a. Disruption in brain development during pregnancy | <input type="checkbox"/> |
| b. Learnt from siblings | <input type="checkbox"/> |
| c. Previous neurological problems of mother and the father | <input type="checkbox"/> |
| d. Conduct disorder | <input type="checkbox"/> |

4. What is dyslexia?

- | | |
|-----------------------|--------------------------|
| a. Language problem | <input type="checkbox"/> |
| b. Trouble in hearing | <input type="checkbox"/> |
| c. Trouble in reading | <input type="checkbox"/> |
| d. Poor handwriting | <input type="checkbox"/> |

5. What is dysgraphia?

- a. Problem in spelling written expression and handwriting
- b. Problem in writing language other than mother tongue
- c. Problem in motor function and understanding non verbal cues
- d. Problem in speech

6. What is dyspraxia?

- a. Difficulty in understanding non verbal cues
- b. Difficulty on fine motor skills
- c. Difficulty in drawing
- d. Difficulty in seeing and hearing

7. What is dyscalculia?

- a. Difficulty in grasping math concepts
- b. Difficulty in concentration
- c. Difficulty in memorization
- d. Difficulty in drawing

8. What is the importance of early identification of learning disability?

- a. Encourage the school drop outs
- b. Promote communication skills
- c. Helps to develop study skills
- d. All the above

9. What will be the indicator for early identification of learning disability?

- a. Difficulty in reading and writing
- b. Conduct problems
- c. Good school performance

d. Adequate attention

10. Which are the primary school signs and symptoms of learning disability?

- a. Lack of concentration
- b. Difficulty in listening
- c. Confuses basic words when reading
- d. Fast in learn new skills

11. Pick up correct example of dyslexia

- a. Writes 'simon' as 'siamion'
- b. Read 'felt' as 'left'
- c. Misinterpret the gesture and expression
- d. Difficulty in buttoning shirts

12. What is the example of dysgraphia?

- a. Put words in wrong order while reading
- b. Omits letter while writing "cat" for "cart"
- c. Abnormal waving 'bye'
- d. Misinterpret the symbol $+$, $-$ and \times

13. Which one of the following is not a feature of dyscalculia?

- a. Confusing signs $+$, $-$ and \times
- b. Difficulty in telling time
- c. Difficulty on mental arithmetic
- d. Good at keeping scores while playing

14. What is the most common type of learning disability?

- a. Dyscalculia
- b. Dysgraphia
- c. Dyslexia
- d. Dyspraxia

15. What is the management for learning disability?
- a. Providing care, love and security alone
 - b. Remedial education and use of technology
 - c. Admitting in a psychiatric hospital for a short period
 - d. Stop schooling temporarily
16. Who are the members involved in treating the child with learning disability?
- a. Teacher alone
 - b. Teacher and parents
 - c. Teacher and psychologists
 - d. Multidisciplinary approach
17. What is the intervention for dysgraphia by the teacher?
- a. Not to give notes and outlines
 - b. Can offer written exam
 - c. Can offer oral exam
 - d. Can offer written exam
18. What the teacher should do when the child is having dyslexia?
- a. Give extra time to finish tasks
 - b. Not allow to use technology
 - c. Encourage silent reading.
 - d. Compare the child with others
19. What can be done when the child is having dyscalculia?
- a. Giving more sums
 - b. Can use calculator
 - c. Encourage for copying
 - d. Advise not to use of memory aids

20. Which condition is treated by occupational therapy?

- a. Dyscalculia
- b. Dyslexia
- c. Dyspraxia
- d. Dysgraphi

பகுதி-1

சுய குறிப்புகள்

(கீழ்க்கண்ட கேள்விகளுக்கு சரியான விடையை தேர்வு செய்யவும்.)

1. வயது வருடங்களில்

அ. 20_30

☐

ஆ. 31_40

☐

இ. >40

☐

2. பாலினம்

அ. ஆண்

☐

ஆ. பெண்

☐

3. கல்வித் தகுதி

அ. ஆசிரியர் பயிற்சி

☐

ஆ. கல்வியியலில் இளநிலை படிப்பு

☐

இ. கல்வியியலில் முதுகலை பட்ட படிப்பு

☐

ஈ. வேறு ஏதேனும்

☐

4. கற்பிப்பதில் அனுபவம் வருடங்களில்

அ. 0_3

☐

ஆ. 4_8

☐

இ. >8

☐

5. திருமணமானவரா?

அ. திருமணமானவர்

ஆ. திருமணமாகாதவர்

இ. விவாகரத்தானவர் / பிரிந்திருப்பவர்

☐☐☐

6. உங்களது கல்வியியல் பாடத்தொகுப்பில் குழந்தை உளவியல் உள்ளதா?

அ. ஆம்

ஆ. இல்லை

☐☐

7. நீங்கள் இதற்கு முன்னர் கற்றலில் உள்ள பிரச்சினைகள் குறித்த பயிற்சி பெற்றவரா?

அ. ஆம்

ஆ. இல்லை

☐☐

8. உங்கள் குடும்பத்தில் யாரேனும் கற்றலில் இயலாமை உள்ளவரா?

அ. ஆம்

ஆ. இல்லை

☐☐

பகுதி II

அறிவு சார்ந்த கேள்வித்தாள்

(கீழ்க்கண்ட கேள்விகளுக்கு சரியான விடையை தேர்வு செய்யவும்.)

1.கற்றல் செயல்முறை என்பது

அ. உணர்தல், கருத்து, செறிவூட்டல், கற்பனை

☐

ஆ. கவனித்தல், கருத்தில் கொள்ளல், கற்பனை மற்றும் உணர்தல்

☐

இ. உணர்தல், கருத்தில் கொள்ளல், கற்பனை, வெளிப்படுத்துதல்

☐

மற்றும் கருத்தாக்குதல்.

ஈ. உணர்தல்,கவனித்தல்,கருத்தில்கொள்ளல்,கற்பனை,வெளிப்படுத்துதல்

☐

மற்றும் கருத்தாக்குதல்.

2.கற்றலில் இயலாமை என்றால் என்ன?

அ. மனவளர்ச்சி குறைவு

☐

ஆ. நினைவற்றல் பாதிப்பு

☐

இ. படிப்பதில் எழுதுவதில் சிரமம்

☐

ஈ.கவனித்தல் செறிவில் கோளாறு

☐

3.கற்றலில் இயலாமையை உண்டாக்கும் காரணிகள் யாவை?

அ. கர்ப்ப காலத்தில் குழந்தையின் மூளை வளர்ச்சியில் ஏற்படும் பதிப்புகள்

☐

ஆ. உடன் பிறந்தவர்களிடமிருந்து கற்றுக்கொள்ளல்

☐

இ. தந்தை அல்லது தாயிடம் உள்ள நரம்பு கோளாறுகள்

☐

ஈ. நடத்தை கோளாறுகள்

☐

4. டிஸ்லெக்சியா என்றால் என்ன?

அ. பேசுவதில் சிரமங்கள்

☐

ஆ. எழுதியவைகளைப் புரிந்து கொள்வதில் உள்ள சிரமம்

☐

இ. திக்குவாய் போன்ற சிரமங்கள்

☐

ஈ. மோசமான கையெழுத்து

☐

5. டிஸ்கிராஃபியா என்றால் என்ன?

அ. எழுதுதல் மற்றும் கையெழுத்தில் உள்ள சிரமம்

☐

ஆ.தாய் மொழி அல்லாத பிற மொழியை எழுதுவதில் சிரமம்

☐

இ. செயல் திறங்களில், சைகைகளைப் புரிந்துகொள்வதில் உள்ள
சிரமம்

☐

ஈ. பேசுவதில் உள்ள சிரமம்

☐

6. டிஸ்ப்ராக்சியா என்றால் என்ன?

அ. சைகைகளைப் புரிந்து கொள்வதில் உள்ள சிரமம்

☐

ஆ. செயல்திறங்களில் உள்ள சிரமம்

☐

இ. படம் வரைதலில் உள்ள சிரமம்

☐

ஈ. பார்ப்பதில், கேட்பதில் உள்ள சிரமங்கள்

☐

7. டிஸ்கால்குலியா என்றால் என்ன?

அ.வாய்ப்பாடுகள் மற்றும் எண்களை உட்கிரகித்தலில் உள்ள சிரமம்

☐

ஆ. கூர்ந்து கவனித்தலில் உள்ள சிரமம்

☐

இ. மனப்பாடம் செய்வதில் உள்ள சிரமம்

☐

ஈ. படம் வரைதலில் உள்ள சிரமம்

☐

8..கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில்

கண்டறிவதன் முக்கியத்துவம் என்ன?

அ. பள்ளியை விட்டு நிற்பதை ஊக்குவிக்க

☐

ஆ. மற்றவர்களுடன் தொடர்பு கொள்ளும் திறனை மேம்படுத்த

☐

இ. படிக்கும் திறனை உருவாக்குகிறது

☐

ஈ.மேற்குறிப்பிட்ட அனைத்தும்

☐

9. கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில்

கண்டறிவதற்கான குறியீட்டுக்காட்டி எது?

அ. வாசிப்பதில் மற்றும் எழுதுவதில் சிரமம்

☐

ஆ. நடத்தை சீர்கேடு

☐

இ. பள்ளியில் சிறப்பாக செயல்படுதல்

☐

ஈ. நன்றாக கவனித்தல்

☐

10. ஆரம்ப பள்ளி செல்லும் குழந்தைகளின் கற்றலில்

இயலாமைக்கான ஆரம்ப நிலை அறிகுறி என்ன?

அ.செறிவு குறைபாடு

☐

ஆ. கவனித்தலில் சிரமம்

☐

இ. அடிப்படை வர்த்தைகளை வாசிப்பதில் சிரமம்

☐

ஈ. விரைவாக புதிய திறங்களை கற்றுக்கொள்ளல்

☐

11..பின்வருவனவற்றுள் டிஸ்லெக்சியாவிடமிருந்து சரியான உதாரணம்

எது?

அ. "simon" ஐ "siamion" என எழுதுதல்

☐

ஆ. "felt" ஐ "left" எனப் படித்தல்

☐

இ. சைகைகளைப் புரிந்துகொள்ளாதிருத்தல்

☐

ஈ. சட்டைக்கு பட்டன் போடுதலில் சிரமம்

☐

8..கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில்

கண்டறிவதன் முக்கியத்துவம் என்ன?

அ. பள்ளியை விட்டு நிற்பதை ஊக்குவிக்க

☐

ஆ. மற்றவர்களுடன் தொடர்பு கொள்ளும் திறனை மேம்படுத்த

☐

இ. படிக்கும் திறனை உருவாக்குகிறது

☐

ஈ.மேற்குறிப்பிட்ட அனைத்தும்

☐

9. கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில்

கண்டறிவதற்கான குறியீட்டுக்காட்டி எது?

அ. வாசிப்பதில் மற்றும் எழுதுவதில் சிரமம்

☐

ஆ. நடத்தை சீர்கேடு

☐

இ. பள்ளியில் சிறப்பாக செயல்படுதல்

☐

ஈ. நன்றாக கவனித்தல்

☐

10. ஆரம்ப பள்ளி செல்லும் குழந்தைகளின் கற்றலில்

இயலாமைக்கான ஆரம்ப நிலை அறிகுறி என்ன?

அ.செறிவு குறைபாடு

☐

ஆ. கவனித்தலில் சிரமம்

☐

இ. அடிப்படை வர்த்தைகளை வாசிப்பதில் சிரமம்

☐

ஈ. விரைவாக புதிய திறங்களை கற்றுக்கொள்ளல்

☐

11..பின்வருவனவற்றுள் டிஸ்லெக்சியாவிற்கு சரியான உதாரணம்

எது?

அ. "simon" ஐ "siamion" என எழுதுதல்

☐

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☐

இ. சைகைகளைப் புரிந்துகொள்ளாதிருத்தல்

☐

ஈ. சட்டைக்கு பட்டன் போடுதலில் சிரமம்

☐

16. கற்றலில் இயலாமை உள்ள குழந்தைகளை பேணுவதில்

பங்கேற்பாளர்கள் யார்?

அ.ஆசிரியர் மட்டும்

ஆ. ஆசிரியர் மற்றும் பெற்றோர்

இ. ஆசிரியர் மற்றும் உளவியல் நிபுணர்

ஈ. பல்வகை அணுகுமுறை

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17.எழுதுவதில் சிரமம் உள்ள மாணவர்களுக்கு ஒரு ஆசிரியர் செய்ய

வேண்டியது என்ன?

அ. குறிப்புகள்,சுருக்கமான வருணனை ஆகியவற்றை

கொடுக்காதிருத்தல்

ஆ.எழுத்து தேர்வு நடத்துதல்

இ. வாய்வழி தேர்வு நடத்துதல்

ஈ.அதிகமான எழுத்து பயிற்சி கொடுத்தல்

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18.டிஸ்லெக்சியா உள்ள குழந்தைக்கு ஒரு ஆசிரியர் என்ன

செய்யலாம்?

அ. குறிப்பிட்ட வேலையை செய்து முடிக்க வேண்டிய நேரத்தை

நீட்டித்து தருதல்

ஆ. தொழில் நுட்ப முறைகளை அனுமதிக்க கூடாது

இ. மனதுக்குள் வசிப்பதை ஊக்கப்படுத்துதல்

ஈ. மற்ற குழந்தைகளுடன் ஒப்பிடுதல்

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19.டிஸ்கால்குலியா ஁ள்ள குழந்தையை ஁ரு ஆசிரியர் ஁ப்படி கையாளலாம்?

அ.அதிக கணக்குகளை ஁ோட செய்தல்

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ஆ.கணக்கீட்டுக் கருவி ஁பயோகிக்க அறிவுறுத்துதல்

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இ. மற்றவர்களை பார்த்து ஁ழுத ஁க்கபடுத்துதல்

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஁. நினைவுப்படுத்தும் சாதனங்களை ஁பயோகப்படுத்த அனுமதிக்ககூடாது.

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20.கீழ்கண்டவற்றுள் தொழில் முறை பயிற்சி மூலம் குணப்படுத்தக்கூடியது

஁து?

அ.டிஸ்கால்குலியா

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ஆ. ஁ஸ்லெக்சியா

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இ. ஁ஸ்பிரக்சியா

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஁. ஁ஸ்கிரா஁பியா

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APPENDIX - V

PSYCHO EDUCATION MODULE ON EARLY IDENTIFICATION OF CHILDREN WITH LEARNING DISABILITY

INTRODUCTION

According to WHO “children are priceless resource and that any nation which neglects them would do so at its peril”. There are children who look normal and behave normally but academically they are not good as their peers. They suffer a lesser-known condition called learning disability (LD). In countries like India, with a population over a billion, problems like poverty, it is itself difficult to educate a normal child, and therefore training special children is difficult to imagine. Learning disabilities in children may be detected only after child begins school and faces difficulties. Teachers either ignore the deficiency or blame it on the child’s personality branding it as laziness, attitude, aggression, slow learner, poor learner etc. Child spends most part of their learning hours in school with teachers, who are responsible for the integrated and all round development of a child.

Central Objective

On completion of this session, the primary school teachers acquire knowledge regarding early identification of children with learning disability.

Behavioral Objective

On completion of this session, the primary school teachers will be able to

1. explain the concepts of learning and learning disability
2. list the types of learning disability
3. enumerate the early identifying signs and symptoms of learning disability
4. describe the management of learning disability

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
1	40 mts	explain the concepts of learning and learning disability	<p>INTRODUCTION :</p> <p>Learning is an experience a child grows through since birth. He explores his environment and gradually begins to understand the elements around him and satisfy his needs – mother/ caregiver, milk, toys.....though all children go through the developmental stages and acquire tasks appropriate to the given stage ,each child is unique with his own physical appearance and characteristics, abilities and talents, personality pattern as well as learning styles. The teachers must count also the strengths of a learner while correcting or remediating his limitations so that educational planning is done in the right perspective. To do so, a teacher should know how learning occurs and why children fail.</p> <p>Meaning of learning:</p> <p>The activity or process of gaining knowledge or skill by studying, practicing, being taught, or experiencing something.</p> <p>Definition of learning:</p> <p>Learning is the act of acquiring new, or modifying and reinforcing</p>	Discussing	Participate in discussion	PPT	What are the process of learning?

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>existing knowledge, behaviors, skills, values, or preferences and may involve synthesizing different types of information.</p> <p>Why do children fail?</p> <p>To answer this, let us Compare the human being to a computer. A computer has an input (key board/ mouse), a central processing unit (CPU) and an output (monitor) unit. When all these are intact, the computer works well. In a human being, consider the five senses as input channels, the brain as a CPU and the monitor systems (speech, movement, gestures and writing ability) as the output channels. When we say we have learnt something, these systems work in synchrony. A breakdown in any of these will lead to failure in learning.</p> <p>Learning process: Sensation: Signs of problem in auditory acuity and visual acuity are to be observed by the class teacher and referred for medical experts attention.</p> <p>Auditory acuity: Listening in the class with the ears in an angle (hears turned to side), while a teacher dictates, copying from neighbors, seems to look elsewhere when teacher</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>speaks, and copies actively when she writes on the board are some signs the child need to be checked by audiologist/ ENT specialist for auditory acuity.</p> <p>Visual acuity:</p> <p>Similarly watering eyes, copying with lot of errors from the board or copying from neighbor, attending only when the teacher speaks and not when she writes, shabby handwriting, and ignoring lines are some of the indications for the teacher to refer the child to ophthalmologist to check for visual acuity.</p> <p>Attention:</p> <p>After receiving information through the senses, one should attend to the stimuli to make meaning out of it. To do this one has to filter the unwanted stimuli and focused only on what is to be absorbed. This is called attention. If the child does not attend enough, the information will not reach the brain and the information received by the senses cannot be understood.</p> <p>Perception:</p> <p>Perception is basically the ability to discriminate. It makes the senses</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>meaningful. The problems in perception can be vary many. It integrates the various stimuli. Perceptual skill is one of the key factors in identifying problems in early academic learning.</p> <p><u>The sub-categories of perception are:</u></p> <p>a) Discrimination: seeing or hearing likenesses and differences in sounds and symbols.</p> <p>b) Figure Ground: the ability to separate and focus on what one wishes to attend visually or auditory from the surrounding environment.</p> <p>c) closure: the ability to synthesis sounds and symbols to recognize whole from parts.</p> <p>Imagery:</p> <p>Imagery is the essential memory, where the child is expected to retain that which he had heard , seen and short term memory. Sequential memory is also an essential component of imagery.</p> <p>Symbolization:</p> <p>This is otherwise known as language, which can be verbal and non-verbal.</p> <p>This is essential for communication. Problems in receptive, expressive or inner language can lead to problems in learning.</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>Gross and fine motor efficiency are very essential in learning, as poor balance and coordination, poor body rhythm and eye-hand coordination obviously interfere with learning.</p> <p>Conceptualization:</p> <p>This is independent upon the integrity of all the above mentioned stages of learning. It is essential to find out at what conceptual level the child is functioning. The three levels are</p> <p>Concrete level : plate is round.</p> <p>Functional level : plate is used for dining.</p> <p>Abstract level : plate is utensil.</p> <p>As a rule, all the teaching should always begin at concrete level and move to abstract level.</p> <p>Learning problems can be due to difficulty in any one or more of the above the processes of learning by which the student is unable to learn optimum. Appropriate educational diagnosis and remedial education will assist in learning process.</p>				


S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>LEARNING DISABILITY</p> <p>Federal Definition of Learning Disability:</p> <p>The following <i>Federal definition</i> by the U.S. Government in Public Law 94-142 of Learning Disabilities <i>has been adopted in India.</i></p> <p><i>“Specific Learning Disabilities means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, spell or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing or motor handicaps, or mental retardation, emotional disturbance or environmental, cultural or economic disadvantages.” (Federal Register, 1977, p. 65083)</i></p> <p>Causes of learning disability</p> <p>Learning disabilities are caused by something affecting the development of</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>brain. This may occur before birth (prenatally), during birth, or in early childhood.</p> <p>Learning disabilities can be caused by any one of a variety of factors, or by a combination. Sometimes the specific cause is not known.</p> <p><i>Possible causes include the following:</i></p> <ul style="list-style-type: none"> ➡ An inherited condition, meaning that certain genes passed from the parents affected the brain development, for example Fragile X syndrome. ➡ Chromosome abnormalities such as Down's syndrome or Turner syndrome ➡ Complications during birth resulting in a lack of oxygen to the brain ➡ A very premature birth ➡ Mother's illness during pregnancy ➡ The mother drinking alcohol during pregnancy, for example Fetal Alcohol Syndrome ➡ A debilitating illness or injury in early childhood affecting brain development, for example a road traffic accident or child abuse. ➡ Contact with damaging material (like radiation) ➡ Neglect, and/or a lack of mental stimulation early in life. 				

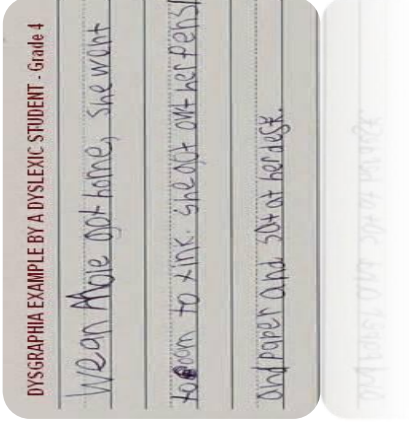
S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>➡ Some people with learning disabilities have additional physical disabilities and/or sensory impairments.</p> <p>INCIDENCE</p> <p>Globally 5% of school aged population has been affected with learning disabilities. 52.4% of all students with disabilities ages 6-21 years Boys out numbers girls. The prevalence of learning disabilities is quite high in countries like Great Britain 14%, France 12-14%, USA 10-15%, Canada 10-16%. 10% of children are identified in India.</p> <p>COMMON TYPES OF LEARNING DISABILITIES</p> <ul style="list-style-type: none"> ■ Dyslexia (<i>Difficulty in reading</i>) Problems in reading, writing, spelling, speaking. ■ Dyscalculia (<i>Difficulty with math</i>) Problems in doing math, understanding time, using money. ■ Dysgraphia (<i>Difficulty in writing</i>) Problems with hand writing, spelling, organizing ideas. ■ Dyspraxia (<i>Sensory integration disorder</i>) <i>Difficulty with fine motor skills</i> 	Explaining	Listening	P A M P H L E T	List the types of learning disability.
2.	20 mts	list the types of learning disability					

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>Problems with hand eye co ordination, balance, and manual dexterity.</p> <ul style="list-style-type: none"> ■ Dysphasia/aphasia (<i>Difficulty with language</i>) Problems understanding spoken language, poor reading comprehension ■ Auditory processing disorder(<i>Difficulty in hearing differences between sounds</i>) Problems with reading, comprehension, language. ■ Visual processing disorder(<i>Difficulty in interpreting visual information</i>) Problems with reading, math, maps, charts, symbols, pictures. 				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
3.	40 mts	enumerate the early identifying signs and symptoms of learning disability	<p>THE IMPORTANCE OF EARLY IDENTIFICATION</p> <p>▶ Early identification helps to determine which children have developmental problems that may be obstacles to learning or that place children at risk.</p> <p>▶ Early identification helps for screening, evaluation, enhanced learning opportunities, and possibly intervention services can be provided as early as possible.</p> <p>▶ <i>Early intervention has a dual effect</i> – it not only helps the child <i>to develop skills</i> that are expected at his age, but equally importantly prevents the child from <i>developing negative behaviors</i> consequent to the developmental issues faced by him or her.</p> <p>EARLY IDENTIFYING SIGNS AND SYMPTOMS LEARNING DISABILITY:</p> <p>Early warning signs:</p> <ul style="list-style-type: none"> ◆ Poor performance on group test ◆ Difficulty discriminating size, shape and color ◆ Reversals in writing and reading ◆ General awkwardness ◆ Poor visual motor coordination ◆ Hyper activity ◆ Difficulty coping accurately from a model ◆ Slowness in completing work Easily confused by instructions ◆ Poor short term or long term memory ◆ Behavior often inappropriate for situation 	Explaining	Listening	B O O K L E T	What are the early warning signs of learning disability?

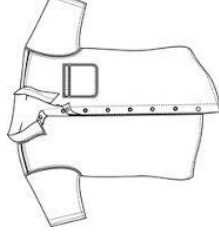
S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<ul style="list-style-type: none"> ◆ Failure to see consequences for his action ◆ Overly distractible difficulty concentrating ◆ Poor peer relationships ◆ Overly excitable during group play ◆ Poor social judgment ◆ Lags in developmental milestones (Eg: Motor, language) <p>DYSLEXIA</p> <p>People with dyslexia usually have trouble making the connections between letters and sounds and with spelling and recognizing words.</p> <p>People with dyslexia often show other identification signs of the condition. These may include</p> <ul style="list-style-type: none"> ❖ Failure to fully understand what others are saying ❖ Difficulty organizing written and spoken language ❖ Delayed ability to speak ❖ Poor self-expression (for example, saying "thing" or "stuff" for words not recalled) ❖ Difficulty learning new vocabulary, either through reading or hearing ❖ Trouble learning foreign languages ❖ Slowness in learning songs and rhymes ❖ Slow reading as well as giving up on longer reading tasks ❖ Difficulty understanding questions and following directions 				Mention any four signs and symptoms of dyslexia

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<ul style="list-style-type: none"> ❖ Poor spelling ❖ Difficulty recalling numbers in sequence (for example, telephone numbers and addresses) ❖ Trouble distinguishing left from right <p><i>Examples:</i></p> <ul style="list-style-type: none"> ❖ The dyslexic may reverse letters like 'b' and 'd' or 'p' and 'q' either when reading or writing. ❖ He may invert letters reading and writing 'n' as 'u', 'm' as 'w', 'd' as 'q', 'p' as 'b', 'f' as 't'. ❖ He may read or write words 'no' for 'on', 'rat' for 'tar', 'won' for 'now', 'saw' for 'was'. ❖ He may read or write 17 for 71 ❖ He may read 'felt' as 'left', 'act' as 'cat' (Puts letters in wrong order) ❖ He may put syllables in wrong order as 'animal' as 'aemial', 'enemy' as 'emeny'. ❖ He may omit letters ie reading or writing cat for cart, wet for went, sing for string. 				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>DYSGRAPHIA</p> <p>Dysgraphia is characterized by problems with writing.</p> <p>This disorder may cause a child to be tense and awkward when holding a pen or pencil, even to the extent of contorting his or her body. A child with very poor handwriting that he or she does not outgrow may have dysgraphia.</p> <p>Other signs of early identification this condition may include</p> <ul style="list-style-type: none"> ■ A strong dislike of writing and/or drawing ■ Problems with grammar ■ Trouble writing down ideas ■ A quick loss of energy and interest while writing ■ Trouble writing down thoughts in a logical sequence ■ Saying words out loud while writing ■ Leaving words unfinished or omitting them when writing sentences  <p>DYSGRAPHIA EXAMPLE BY A DYSLEXIC STUDENT - Grade 4</p> <p>We on Able got home, she went to school to link. she got out her pencil and paper and got at her desk.</p>				How will you identify dysgraphic children?

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>DYSCALCULIA</p> <p>Signs of this disability include problems understanding basic arithmetic concepts, such as fractions, number lines, and positive and negative numbers.</p> <p><i>Other symptoms may include:</i></p> <ul style="list-style-type: none"> ■ Difficulty with math-related word problems ■ Trouble making change in cash transactions ■ Messiness in putting math problems on paper ■ Trouble recognizing logical information sequences (for example, steps in math problems) ■ Trouble with understanding the time sequence of events ■ Difficulty with verbally describing math processes <p><i>The examples are:</i></p> <ul style="list-style-type: none"> ⊕ The dyslexic may have a problem with numbers and calculations involving adding, subtracting and timetables. ⊕ He may be confused by similar looking mathematical signs + and X, , +, =, <, >. ⊕ He may not grasp that the words difference, reduction and minus all suggest subtraction. ⊕ The dyslexic may reverse numbers and read or write 17 for 71. 				What are the identifying signs of dyscalculia?

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>⊕ He may transpose numbers 752 - 572.</p> <p>⊕ He may have a difficulty with mental arithmetic</p> <p>DYSPRAXIA</p> <p>A person with dyspraxia has problems with motor tasks, such as hand-eye coordination, that can interfere with learning. Some other symptoms of this condition include:</p> <ul style="list-style-type: none"> ✚ Problems organizing oneself and one's things ✚ Breaking things ✚ Trouble with tasks that require hand-eye coordination, such as coloring within the lines, assembling puzzles, and cutting precisely ✚ Poor balance ✚ Sensitivity to loud and/or repetitive noises, such as the ticking of a clock ✚ Sensitivity to touch, including irritation over bothersome-feeling clothing 				Mention any two signs of dyspraxia.



S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>LEARNING DISABILITIES IN LANGUAGE (APHASIA/DYSPHASIA)</p> <p>Language and communication learning disabilities involve the ability to understand or produce spoken language. Language is also considered an output activity because it requires organizing thoughts in the brain and calling upon the right words to verbally explain something or communicate with someone else.</p> <p>Signs of a language-based learning disorder involve problems with verbal language skills, such as the ability to retell a story and the fluency of speech, as well as the ability to understand the meaning of words, parts of speech, directions, etc.</p> <p>SENSORY INTEGRATION (OR PROCESSING) DISORDER</p> <p>Sensory Integration Disorder is associated with the ability to integrate information from the body's sensory systems (visual input, auditory input, olfactory input, taste, tactile input, vestibular input (balance/movement), and proprioceptive input (position)). Information from the senses are not interpreted in ways that it can be used efficiently by the brain. A student with a sensory integration disorder might present some of the following difficulties:</p> <ul style="list-style-type: none"> ■ extremely over- or under-reactive to senses, such as touch, sound, light, smells or anything put into the mouth 				How will you identify the child with dysphasia?

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<ul style="list-style-type: none"> ■ strong over- or under-responsiveness to movement: e.g. avoids movement or craves it, startles easily, seems clumsy, careless ■ having a strong attraction to or dislike for getting messy ■ knowing where one's body is in space ■ knowing how much physical pressure to apply to something ■ unusually high or low activity level, or rapidly moving from one to the other ■ calming oneself or unwinding ■ social emotional problems, e.g. easily frustrated, tantrums, acting out, poor self concept, ■ making smooth transitions ■ being easily distracted ■ carrying out small or large motor tasks 				How will you identify the child with sensory integration disorder?

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
4.	40 mts	describe the management of learning disability	<p>MANAGEMENT FOR LEARNING DISABILITIES</p> <p>People with learning disabilities and disorders can learn strategies for coping with their disabilities. Getting help earlier increases the likelihood for success in school and later in life. If learning disabilities remain untreated, a child may begin to feel frustrated with schoolwork, which can lead to low self-esteem, depression, and other problems. Below are just a few examples of ways educators help children with specific learning disabilities.</p> <p>Dyslexia</p> <ul style="list-style-type: none"> ◆ Special teaching techniques. These can include helping a child learn through multisensory experiences and by providing immediate feedback to strengthen a child's ability to recognize words. ◆ Classroom modifications. For example, teachers can give students with dyslexia extra time to finish tasks and provide taped tests that allow the child to hear the questions instead of reading them. ◆ Use of technology. Children with dyslexia may benefit from listening to books on tape or using word-processing programs with spell-check features. 	Explaining	Listening	B O O K L E T	How will you manage the child with learning disability?

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>Dysgraphia</p> <ul style="list-style-type: none"> ■ Special tools. Teachers can offer oral exams, provide a note-taker, and/or allow the child to videotape reports instead of writing them. ■ Use of technology. A child with dysgraphia can be taught to use word-processing programs or an audio recorder instead of writing by hand. ■ Other ways of reducing the need for writing. Teachers can provide notes, outlines, and preprinted study sheets. <p>Dyscalculia</p> <ul style="list-style-type: none"> Ⓢ Visual techniques. For example, teachers can draw pictures of word problems and show the student how to use colored pencils to differentiate parts of problems. Ⓢ Use of memory aids. Rhymes and music are among the techniques that can be used to help a child remember math concepts. Ⓢ Use of computers. A child with dyscalculia can use a computer for drills and practice. 				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>Dyspraxia</p> <ul style="list-style-type: none"> ➡ Quiet learning environment. To help a child deal with sensitivity to noise and distractions, educators can provide the youngster with a quiet place for tests, silent reading, and other tasks that require concentration. ➡ Alerting the child in advance. For example, a child who is sensitive to noise may benefit from knowing in advance about such events as fire drills and assemblies. ➡ Occupational therapy. Exercises that focus on the tasks of daily living can help a child with poor coordination. <p>TEACHING STRATEGIES AND ROLE OF TEACHER FOR CHILDREN WITH LEARNING DISABILITIES:</p> <p>Children with learning disabilities show greater learning when techniques like task analysis, peer teaching, cooperative learning, learning corners and multisensory approach are used. The following strategies would be helpful to both the parents and teachers when trying to teach such children.</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>Strategies for reading skills:</p> <ul style="list-style-type: none"> ■ Prepare the student by presenting new concepts and vocabulary. ■ Guide the student in to reading a story by asking questions which bring up the purpose or goal of the reading. ■ Develop or strengthen skills relating to the material through drills or worksheet activities. ■ Assign work in order to apply the skills acquired during a lesson. ■ Read aloud to students regularly. ■ Devote a few minutes every day to sustained silent reading. ■ Use writing activities that provide opportunities for the teacher to model writing strategies and skills. ■ Include journal writing as part of the student's individualized educational program. ■ Provide meaningful printed materials in the instructional setting (e.g. dictionaries, categorized lists of words). ■ Establish a network of communication with other teachers, and thus 				<p>List any four strategies for improve reading skill.</p>

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<ul style="list-style-type: none"> ■ using holistic techniques in working with such students. ■ Let the child read aloud (oral reading). If the child makes mistakes they can be easily identified by the teacher and corrected. ■ Reading can be done with peers or with parents (paired reading). This will enhance the confidence of the child. ■ Reading in a group (choral reading). Here they get both auditory and visual stimulus to correct themselves. ■ Use color-coded textbooks (e.g., green equals start, red equals stop) ■ Have a small group of class read aloud simultaneously. <p>Strategies for writing skills:</p> <ul style="list-style-type: none"> Ⓐ A sufficient amount of time should be allocated for writing. (e.g. four times per week) because students can learn and develop as writer only by writing. Ⓑ Expose students to a broad range of writing tasks. Students should participate in writing activities that present highly structured problem-solving situations as well as activities that involve self- 				






S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>selected and expressive writing.</p> <ul style="list-style-type: none"> ④ Create a social climate conducive to writing development. Teachers need to be encouraging in as non-threatening environment and should try to develop a sense of community by promoting student sharing and collaboration. ④ Integrate writing with subjects such as language and arts so as to stimulate the writing skills. ④ Help students develop the processes central to effective writing. The composition process of writing can be divided into a series of discrete stages (e.g. pre write, write and rewrite), and students can be taught appropriate task-specific and meta cognitive strategies (e.g. self- instructional strategy training). ④ Help students develop explicit knowledge about the characteristics of good writing. Students should be given exposure to the characteristics of various literary composition either through reading or teacher presentation of writing or live models that incorporate a specific skill or style. 				What will be the writing strategies?

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>ⓐ Help students develop the skills and abilities to carry out more sophisticated composing processes.</p> <p>ⓑ Assist students in the development of goals for improving their written products.</p> <p>Strategies for mathematics:</p> <p>➡ Use manipulative such as buttons and beads. Let the students drop beads into a clear plastic cup and count while seeing how many beads represent the number. The child also gets auditory input to support this concept.</p> <p>➡ Use visuals. Materials for younger students usually have a generous display of visual illustrations. Materials for older pupils tend to rely more on abstract presentations. A teacher may need to supplement teaching by drawing and constructing visual representations.</p> <p>➡ Try providing verbal reinforcement with visual material. Describing the computation process while working problems along</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>➡ with clapping activities are other examples of verbal reinforcement.</p> <p>➡ <i>Try using tactile presentations</i>. These can be materials such as sandpaper number or paper strips of various lengths used to demonstrate concepts such as more or less.</p> <p>➡ Another type of tactile presentation is to trace a number or problem on the back of the student's hand.</p> <p>➡ <i>Use color cues</i>. Colored chalk and marking pens can be used to indicate these steps and direction of the process. Highlighters can be used to call attention to process signs (+,X) and clue words ("more than" , "times").</p> <p>➡ <i>Provide a sample problem for each assignment</i>. The referent problem can be particularly helpful for students with memory difficulties.</p> <p>➡ <i>Relate class activities to increase temporal awareness to time</i>. Using phrases such as 'in five minutes' "earlier today" and</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>“Yesterday” will provide some basis for understanding time.</p> <p>➡ Calendar work is useful, particularly in regard to special events and holidays.</p> <p>➡ Use display charts.</p> <p>➡ Play tallying games. Develop word problems based on game scores.</p> <p>Have students use playing cards to develop games that require arithmetic computation.</p> <p>➡ Teach students the relationship between addition and subtraction or multiplication and division when they are learning the respective facts.</p> <p>➡ Use color-coded textbooks (e.g. green equals start, red equals stop)</p> <p>➡ Use meaningful examples and materials</p> <p>➡ Have students use graph paper to help organize numbers and columns on mathematical assignments.</p> <p>➡ Teach key vocabulary in mathematics.</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>Usually, experts work to help a child learn skills by building on the child's strengths and developing ways to compensate for the child's weaknesses. Interventions vary depending on the nature and extent of the disability.</p> <p>Special Education Services</p> <p>Children diagnosed with learning and other disabilities can qualify for special educational services. The Individuals with Disabilities Education Improvement Act (IDEA) requires that the public school system provide free special education supports to children with disabilities.</p> <p>Individualized education program (IEPs)</p> <p>A child who qualifies for special education services should receive his or her own Individualized Education Program, or IEP. This personalized and written education plan</p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>  Lists individualized goals for the child  Specifies the plan for services the youngster will receive  Lists the specialists who will work with the child Qualifying for Special Education </p> <p>To qualify for special education services, a child must be evaluated by the school system and meet specific criteria outlined in federal and state guidelines. To learn how to have a child assessed for special services, parents and caregivers can contact a local school principal or special education coordinator. Parents can also visit these Web resources:</p> <p>  The Parent Technical Assistance Center Network website  The Parent Guide to IDEA </p>				

S.No	Time	Specific objective	Content	Teachers activity	Learners activity	A.V Aids	Evaluation
			<p>ROLE OF THE PARENTS</p> <p><i>The parents should bear the following in mind:</i></p> <ul style="list-style-type: none"> ☺ Foster feelings of self-esteem in your child. ☺ Do not compare the performance of their child with other siblings. ☺ All children have strengths and competencies, and these strengths must be identified and reinforced. ☺ Parents who convey hope provide a major force in helping children overcome adversity and become resilient. ☺ Parents can help children develop a sense of responsibility and contribution to their family, and the ward in general. ☺ Parents can provide opportunities for their child to make choices and decisions, and promote self-discipline. ☺ Parents can help the children deal effectively with their mistakes and failures. ☺ If possible, parents should attend training programmers along with the community. 				

Summary:

So far, we discussed about the learning process, concepts of learning disability, types, early identifying signs and symptoms and is management of primary school children.

Conclusion:

Teachers are the child's first contact after school entry and the ideal person to detect a learning problem. Therefore, the teacher's role in early identification of children with learning disability is mandatory. Then only we can generate the bright citizens for our country.

APPENDIX- VI

INFORMED CONSENT

Investigator : Ms. Amali Rani.B.

Name of Participant :

Age/sex :

Date :

Name of the institution:.

Title : “A study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai”

Documentation of the informed consent: (legal representative can sign if the participant is minor or competent).

I _____ have read/it has been read for me, the information in this form. I was free to ask any questions and they have been answered. I am exercising my free power of choice, hereby give my consent to be included as a participant in the study.

I have read and understood this consent form and the information provided to me.

I have had the consent document explained in detail to me.

I have been explained about the nature of my study.

My rights and responsibilities have been explained to me by the investigator.

I agree to cooperate with the investigator

I have not participated in any research study at any time.

I am aware of the fact that I can opt out of the study at any time without having to give any reason

I hereby give permission to the investigators to release the information obtained from me as a result of participation in this study to the regulatory authorities, government agencies and Institutional ethics committee. I understand that they are publicly presented.

My identity will be kept confidential if my data are publicly presented.

I am aware that I have any question during this study; I should contact the concerned investigator.

Signature of Investigator

Signature of Participants

Date

Date

INFORMATION TO PARTICIPANTS

Title : “A study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai.”

Name of the Participant :

Date :

Age/sex :

Investigator : Ms. Amali Rani.B

Name of the institution :

Enrolment No :

You are invited to take part in this study. The information in this document is meant to help you decide whether or not to take part. Please feel free to ask if you have any queries or concerns.

You are being asked to Cooperate in this study being conducted in selected primary schools at Chennai.

What is the Purpose of the Research (explain briefly)

This research is conducted to evaluate the effectiveness of psycho education module regarding early identification of children with learning disability among primary school teachers. We have obtained permission from the Institutional Ethics Committee.

Study Procedures

- Study will be conducted after approval of ethics committee

- A written formal permission will be obtained from authorities of Chennai corporation- education department to conduct study.
- The purpose of study will be explained to the participants.
- The investigator will obtain informed consent.
- The investigator will assess the knowledge of primary school teachers by pre test self administered questionnaire.
- Psycho education will be given early identification of learning disability.
- Post test will be conducted for each school students using the same questionnaire

Possible benefits to other people

The result of the research may provide benefits to the primary school teachers in terms of knowledge of early identification of learning disability

Confidentiality of the information obtained from you You have the right to confidentiality regarding the privacy of your personal details. The information from this study, if published in scientific journals or presented at scientific meetings, will not reveal your identity.

How will your decision not to participate in the study affect you? Your decisions not to participate in this research study will not affect your activity of daily living, medical care or your relationship with investigator or the institution.

Can you decide to stop participating in the study once you start? The participation in this research is purely voluntary and you have the right to withdraw from this study at any time during course of the study without giving any reasons.

Your Privacy in the research will be maintained throughout study. In the event of any publications or presentation resulting from the research, no personally identifiable information will be shared.

Signature of Investigator

Signature of Participants

Date

Date

ஒப்புதல் படிவம்

ஆராய்ச்சி தலைப்பு :கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில் கண்டறிதல் குறித்த அறிவு சார்ந்த படிப்பினையை மனநல கல்வி மூலம் தொடக்கப்பள்ளி ஆசிரியர்களுக்கு வழங்கியபின் எற்படும் விளைவுகள் குறித்த ஆய்வு

ஆய்வாளர் பெயர் : பா. அமலி ராணி

பங்கேற்பாளர் பெயர் :

தேதி :

வயது/பால் :

- ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடனும் சுயநினைவுடனும் சம்மதிக்கிறேன்.
- ஆய்வாளர் மேற்கொள்ள போகும் பரிசோதனைகளை மிக தெளிவாக விளக்கிக்கூறினார்.
- எனக்கு விருப்பமில்லாத பட்சத்தில் ஆராய்ச்சியிலிருந்து எந்நேரமும் விலகலாம் என்பதையும் ஆய்வாளர் மூலம் அறிந்து கொண்டேன்.
- இந்த ஆராய்ச்சி ஒப்புதல் கடிதத்தில் உள்ள விவரங்களை நன்கு புரிந்துகொண்டேன். எனது உரிமைகள் மற்றும் கடமைகள் ஆராய்ச்சியாளர் மூலம் விளக்கப்பட்டது.
- நான் ஆராய்ச்சியாளருடன் ஒத்துழைக்க சம்மதிக்கிறேன்.எனக்கு ஏதேனும் உடல்நலகுறைவு ஏற்பட்டால் ஆராய்ச்சியாளரிடம் தெரிவிப்பேன்.
- நான் வேறு எந்த ஆராய்ச்சிலும் தற்சமயம் இடம்பெறவில்லை என்பதை தெரிவித்துக்கொள்கிறேன்.
- இந்த ஆராய்ச்சியின் தகவல்களை வெளியிட சம்மதிக்கிறேன். அப்படி வெளியிடும்போது என் அடையாளம் வெளிவராது என்பதை அறிவேன்.

- எனக்கு இந்த ஒப்புதல் கடிதத்தின் நகல் கொடுக்கப்பட்டது.

ஆய்வாளர்கையொப்பம்
கையொப்பம்

பங்கேற்பாளர்

தேதி

தேதி

ஆராய்ச்சி தகவல் தாள்

ஆராய்ச்சி தலைப்பு :

கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில் கண்டறிதல் குறித்த அறிவு சார்ந்த படிப்பினையை மனநல கல்வி மூலம் தொடக்கப்பள்ளி ஆசிரியர்களுக்கு வழங்கியபின் எற்படும் விளைவுகள் குறித்த ஆய்வு

ஆய்வாளர் பெயர் : பா. அமலி ராணி

பங்கேற்பாளர் பெயர் :

தேதி :

வயது/பால் :

ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடனும் சம்மதிக்கலாம். இதில் பங்கேற்பதன் நோக்கம். இந்த ஆராய்ச்சியில் தகவல்களை

தெரிந்து கொள்வதற்காகவும். அதனை பயன்படுத்துவதற்காக மட்டும் தான்.

இந்த ஆராய்ச்சியின் நோக்கம்,

கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில் கண்டறிதல் குறித்த அறிவு சார்ந்த படிப்பினையை மனநல கல்வி மூலம் தொடக்கப்பள்ளி ஆசிரியர்களுக்கு வழங்கியபின் எற்படும் விளைவுகளை ஆராய்தல்.

ஆராய்ச்சி மேற்கொள்ளும் முறை

இந்த ஆராய்ச்சியில் தொடக்கப்பள்ளி ஆசிரியர்களுக்கிடையே ஆய்வாளர் தயார் செய்த கேள்வி மூலம், கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில் கண்டறிதல் குறித்த முறைகளை தொடக்கப்பள்ளி ஆசிரியர்களுக்கு கற்றுத்தருவதற்கு முன்பு மற்றும் பின்பு அவருடைய அறிவுத்திறன் மேம்படுவதை அறியலாம்.

இதனால் ஆய்வாளருக்கான பயன்

இந்த ஆய்விற்்குபின் கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில் கண்டறிதல் குறித்த அறிவு சார்ந்த படிப்பினையை மனநல கல்வி மூலம் தொடக்கப்பள்ளி ஆசிரியர்களுக்கு கற்றுத்தந்ததன் தாக்கத்தினை அறியலாம்.

இதனால் பங்கேற்பாளருக்கான பயன்

இந்த ஆய்வு கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில் கண்டறிதல் குறித்த அறிவுத்திறனை ஆசிரியர்களின் அறிவுத்திறனை மேம்படுத்துகிறது. இதன் மூலம் வருங்காலத்தில் கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆரம்ப நிலையில் கண்டறியலாம்.

ஆராய்ச்சியில் பங்கேற்கவில்லை என்றாலும், உங்களின் சராசரி வாழ்கைமுறை, மருத்துவரின் ஆலோசனை மற்றும் சிகிச்சை முறையில் எந்த வித மாற்றமும் ஏற்படாது என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் பங்கேற்க விருப்பம் இல்லை என்றால் உங்களின் முழுமனதுடன் நீங்கள் இந்த ஆராய்ச்சியில் இருந்து விலகி கொள்ளலாம் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் உங்களின் தகவல்களை பாதுகாப்பாக வைத்துக்கொள்கிறேன் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியின் தகவல்களை வெளியிடும் போது, உங்களை பற்றிய அடையாளங்கள் வெளிவராது என்பதை உறுதி கூறுகிறேன்.

ஆய்வாளர் கையொப்பம்
கையொப்பம்

பங்கேற்பாளர்

தேதி

தேதி

APPENDIX - VII

[illegible]

CERTIFICATE OF ENGLISH EDITING

This is to certify that the study conducted by Ms. Amali Rani. B, M.Sc, Nursing II year, college of Nursing, Madras Medical College, Chennai-03, on the topic "A study to assess the effectiveness of psycho education module on knowledge regarding early identification of children with learning disability among primary school teachers in selected schools at Chennai". has been edited by me for English language appropriateness.

Signature : *V. Latha*

Name : *V. LATHA*

Designation: *P. G. Asst. (English)*
C. G. H. S. School. Ch-21

Seal :



கற்றலில் இயலாமை

உள்ள குழந்தைகளை ஆசிரியர்கள்
ஆரம்ப நிலையில் கண்டறிதல் குறித்த
மனநலக்கல்வி கையேடு



கற்றல்

கற்றல் – பொருள் :

கற்றல் என்பது படித்தல், பயிற்சி மற்றும் பிறர் சொல்லி தருவதாலோ அல்லது அனுபவத்தின் மூலமாகவோ அறிவை வளர்த்துக்கொள்ளும் செயல் முறை ஆகும்.

கற்றல் – வரையரை :

கற்றல் என்பது ஒரு பழக்கத்தை உருவாக்கும் அல்லது பயிற்சிகளால் பழக்கத்தில் மாற்றத்தை ஏற்படுத்தும் தொடர் செயலாகும்.

– கிங்ஸ்லி மற்றும் கோரி.

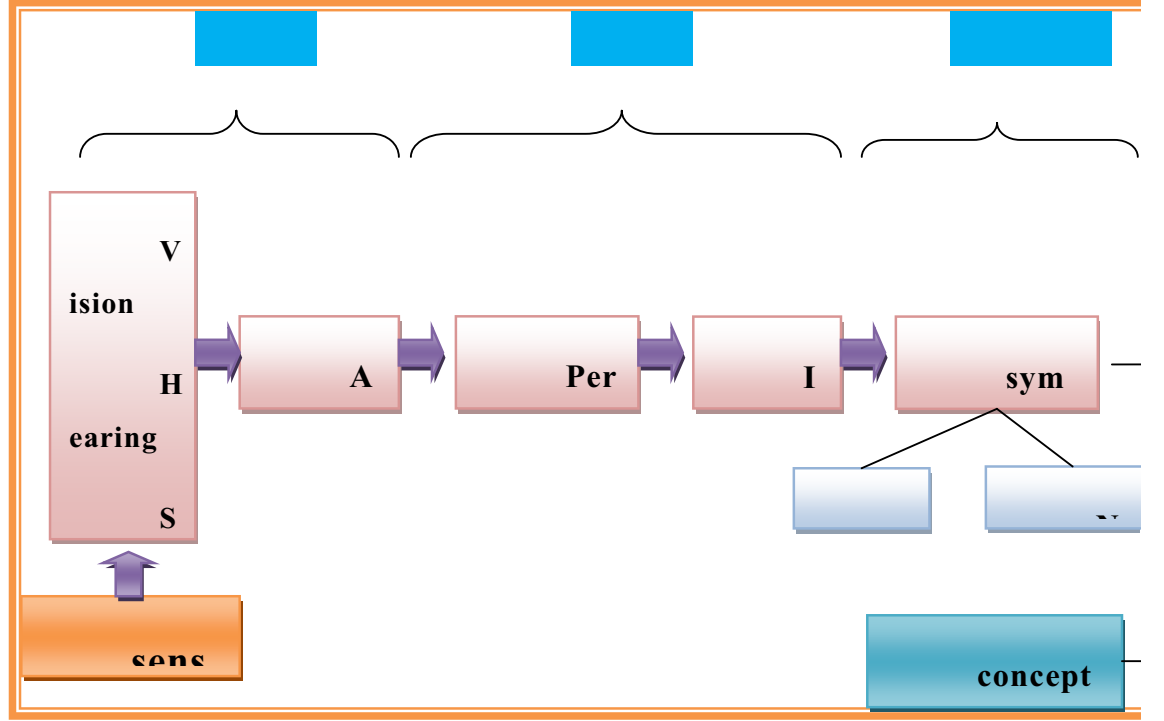
எனவே கற்றல் என்பது அனுபவத்தின் மூலமாக பழக்கத்தின் மூலமாகவும் செயல்பாடுகளில் நிரந்தர மாற்றத்தை கொண்டு வருவதாகு .

கற்றல் – செயல் முறை :

குழந்தைகள் தேர்வில் ஏன் தோல்வி அடைகின்றன. ?

இதற்கு பதிலளிக்க நாம் மனிதனின் மூளையை ஒரு கணினியுடன் ஒப்பிடுவோம். கணினியில் உள்ளீடு (Input) ம னிய செயலாசிக அலகு (CPU) மற்றும் ஒரு வெளியீடு (Out Put) உள்ளது . அதுபோலவே மனிதனுக்கும் உணர்வுகள் அல்லது ஐம்புலன்கள் உள்ளீடாகவும் (Input) மூளை என்பது ம னிய

செயலாசிக அலகாகளி (CPU) மற்றும் பேச்சு, அசைவுகள், சைகைகள் மற்றும் எழுதும் தன்மை ஆகியவை வெளியீட்டாகவும் (Out Put) செயல்படுகிறது.



இந்த செயல்பாடு அனைத்தும் ஒத்திசைந்திருக்கும் போது கற்றல் என்பது முழுமையாக நடைபெறுகிறது. இந்த செயல்பாட்டில் ஏதேனும் முறிவு ஏற்பட்டால் கற்றலில் குழந்தைகள் தோல்வியடைகின்றனர்.

கற்றலில் இயலாமை

முன்னுரை :

கற்றலில் இயலாமை என்பது விவரங்களை பெற்றுக்கொள்ள, செயலாக்கம் செய்ய, உடர் சிக அல்லது நிலைநிறுத்திக்கொள்ள மூளையின் திறனுக்கு



ஒரு ரச்சனையாக அமைகிறது. இந்த பிரச்சனைகள் ஒரு மாணவன் கல்வி கற்க தடையாக அமைகின்றன.

கற்றலில் இயலாமை –வரையறை :

கற்றல் பொதுச்சட்டம் 94-142 அமெரிக்க அரசாங்கத்தின் மத்திய வரையறை – துவே கிளியாவில் ஏற்கப்பட்டுள்ள வரையறை ஆகு .

குறிப்பிட்ட கற்றலில் இயலாமை என்பது ஒன்று அல்லது அதற்கு மேற்பட்ட அடிப்படை உளவியல் செயல்முறையான புரிந்து கொள்ளல், மொழியை பயன்படுத்துதல், பேசுதல், எழுதுதல், ஆகியவற்றில் கண்டறியப்படும் கவனித்தல், பேசுதல், வாசித்தல், எழுதுதல் மற்றும் கணக்குகள் ஆகிய செயல்களில் தன்னை ஹவாக வெ படு த யலாத லை ஆகு .

இந்த வரையறையில் புலனுணர்வு ஊனமுற்றோர், தலையில் காயம், மூளை செயல் திறனில் குறைவு, வாசிப்பதில் சிரம (Dyslexia) மற்றும் (Aphasia) போன்ற நிலைமைகள் அடங்கும்.

மேலும் கண்பார்வை, கேட்டல் அல்லது உடல் இயக்க மாற்றுத்திறனாளிகள், மனவளர்ச்சி குறைபாடு, உணர்ச்சி கொந்தளிப்புடையோர், சுற்று சூழல், கலாசார, பொருளாதார பாதிப்புகளால் கற்றலில் ஏற்படும் சிரமங்கள் இந்த வரையறைக்குள் அடங்காது. (Federal Register, 1997,P,65083)

கற்றலில் இயலாமையின் காரணங்கள் :

கற்றலில் இயலாமை என்பது குழந்தையின் மூளைவளர்ச்சியை பாதிக்கும் காரணிகளால் ஏற்படலாம். இந்த காரணிகள் குழந்தை கருவில் இருக்கும் போதோ, பிரசவத்தின்



போதோ அல்லது முன் குழந்தை பருவத்தில் ஏற்படும் மூளை சார்ந்த பாதிப்புகளினாலோ பாதிப்பை ஏற்படுத்தலாம்.

கற்றலில் இயலாமை என்பது ஒன்று அல்லது அதற்கு மேற்பட்ட காரணிகளால் ஏற்படலாம் சில நேரங்களில் காரணிகளை அறுதியிட்டு சொல்ல முடிவதில்லை.

சாத்தியமான காரணிகள் :

* பெற்றோர்கள் மூலம் குழந்தைகளுக்கு ஏற்படும் மரபணு குறைபாடு (எ. கா) Fragile Syndrome, Down Syndrome Turner Syndrome

* பிரசவத்தின் போது குழந்தைக்கு ஆக்சிஜன் பற்றாக்குறையால் மூளையில் ஏற்படும் பாதிப்புகள்.

* குறை ரசவ .

* கர்ப்ப காலத்தில் தாய் மது அருந்துதல்.

* குழந்தையின் ஆரம்ப வளர்ச்சி பருவத்தில் ஏற்படும் விபத்துக்கள், தலையில் காயம்.

* பாதிப்பு ஏற்படுத்தும் கதிர்வீச்சுகள்.

* ஆரம்ப கால வளர்ச்சி பருவத்தின்போது மன வளர்ச்சியை சரியான முறையில் தூண்டாதிருத்தல். (எ. க) (தனிமைப்படுத்துதல்).

கற்றலை கடினமாக்கும் பிற காரணங்கள் :-

கல்வி கற்றல் கடினமாக இருத்தலுக்கு அறிவு குறைபாடு காரணம் என்று கூற முடியாது மனசோர்வு, மன எழுச்சி, மன அழுத்தம், உணர்வுகளை பாதித்த விபத்துக்கள்

மற்றும் கவன சிதறல்களை ஏற்படுத்தக் கூடிய காரணங்களும் கற்றலை சவாலாக மாற்றி விடுகின்றன.

Autism மற்றும் Attention Deficit Hyperactivity Disorder (ADHD) இணைந்து அல்லது தனித்து கற்றலின் இயலாமைசிகு காரணமாக நினைக்கப்படுகின்றது.

கற்றலில் இயலாமையின் புள்ளி விவரங்கள் :

உலகளவில் பள்ளிக்குழந்தைகளின் எண்ணிக்கையில் 5% குழந்தைகள் கற்றலில் இயலாமையால் பாதிக்கப்பட்டு உள்ளனர்.

இதில் 5,2,4% 6-21 வயதிக்குட்பட்டவர்கள் ஆண்கள் பெண்களை காட்டிலும் அதிமாக பாதிக்கப்படுகின்றனர்.

பல்வேறு நாடுகளில் பாதிக்கப்பட்ட குழந்தைகளின் விழுக்காடு பின்வருமாறு

த் லாகிது - 14 %

பிரான்சு - 12-14 %

அமெ சிகா - 10-15 %

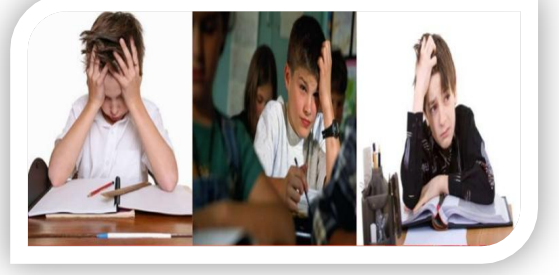
கனடா - 10- %

கின்பா - 10 %

கற்றலில் இயலாமையின் வகைகள் :

⊕ வாசிப்பதில் இயலாமை –
Dyslexia

⊕ கணக்கிடுதலில் சிரமம் –
Dyscalculia



⊕ எழுதுவதில் சிரமம் – Dysgraphia

⊕ செயல் திறன் சிரமம் – Dyspraxia

⊕ மொழியை உபயோகிப்பதில் சிரமம் – Dysphasia

⊕ புலன்களை ஒருங்கிணைத்தல் அல்லது செயலாக்கத்தில் உள்ள
குறைபாடுகள் – Sensory integration processing disorder

கற்றலில் இயலாமை ஆரம்ப நிலையில் கண்டறிவதன் முக்கியத்துவம் :

குழந்தைகளின் கற்றலில் ஏற்படும் பிரச்சனைகளை ஆரம்ப நிலையில் கண்டறிவது என்பது இன்றியமையாத ஒன்றாகும்.

குழந்தைக்கு தேவையான முழு பரிசோதனை, மதிப்பீடு, கற்றல் வாய்ப்புக்களை மேம்படுத்த மற்றும் தேவையான சிகிச்சை முறைகளை முடிந்த அளவி முன்கூட்டியே செயல்படுத்த ஆரம்ப நிலையில் கண்டறிதல் என்பது இன்றியமையாததாகிறது.

மேலும் ஆரம்ப நிலையில் கண்டறிவது இரண்டு விளைவுகளை தரக்கூடியது :

- ◆ கற்றல் செயல்திறனை மேம்படுத்த
- ◆ குழந்தைகளின் தவறான நடத்தை முறைகளை தடுக்க வழிவகை செய்கிறது.

கற்றலில் இயலாமையின் அறிகுறிகள் :

டிக் லெசிசியா : (Dyslexia)

டிக் லெசிசியாவில் பொதுவாக எழுத்துக்களுக்கும் அதன் ஒலிகளுக்கும் உள்ள தொடர்பை அறிவதிலும் வார்த்தைகளை உச்ச தல் மற்றும் அறிந்துகொள்ளல் ஆகியவற்றிலும் பிரச்சனைகள் இருக்கும்.

அறிகுறிகள் :

- மற்றவர்கள் சொல்வதை முழுமையாக புரிந்து கொள்ள இயலாமை.
- எழுத்து மற்றும் பேச்சு மொழியை ஒருங்கிணைப்பதில் சிரமம்.
- குறைவான பேசும் திறன்.
- தன்னை வெளிப்படுத்திக்கொள்வதில் சிரமம்.
- புதிய சொற்களை (வாசிக்கும் போதோ அல்லது கேட்டுக்கும் போதோ) கற்றுக்கொள்வதில் சிரமம்.
- அயல் மொழிகள் கற்றலில் சிரமம்.
- பாடல்கள் மற்றும் சீரிசைகளை கற்றுக்கொள்வதில் தாமத .
- மெதுவாக வாசித்தல் மற்றும் நீலமான வாசிக்கும் பணிகளை புறக்கணித்தல்.
- கேள்விகள், திசைகள் புரிந்து கொள்வதில் சிரமம்.
- அதிகமான எழுத்துப்பிழைகள்.
- வரிசை எண்களை நினைவுகூர்வதில் சிரமம். (எ. கா. தொலைபேசி எண்கள் முகவா..)

வலது இடது அறிந்துகொள்வதில் சிரமங்கள். உதாரணங்கள் :

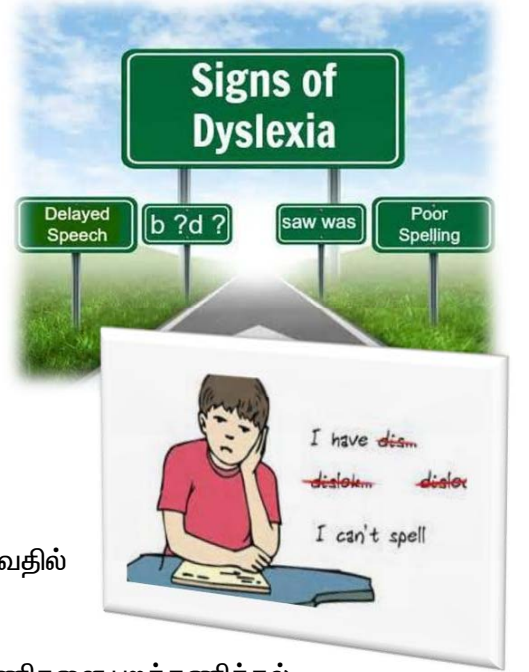
எழுத்துக்களை திரும்பி வாசித்தல் அல்லது எழுதுதல்

‘ b ’ as ‘ d ’

‘ P ’ as ‘ q ’

எழுத்துக்களை தலைகீழாக வாசித்தல் அல்லது எழுதுதல் :

n as u



m as w

d as q

p as b

f as t

எழுத்துக்களை தவறான இடத்தில் அமைத்தல் :

felt as left

act as act

அசைகளை syllables தவறாக உபயோகப்படுத்துதல் :

animal as aemial

enemy as aeniemy

வாசிக்கும் போது எழுதும் போதும் சில எழுத்துக்களை விட்டு படித்தல் :

cat for cart

wet for weat

sing for staying

டிச்கிராபியா (Dysgraphia)

டிஸ்கிராபியா என்பது எழுதுவதில் இயலாமை ஆகும்.

எழுதுக்களை வடிவமைப்பதிலோ,

அல்லது குறுகிய இடத்தில்

எழுதுவதிலோ உள்ள பிரச்சனை

எழுதுவதில் இயலாமை எனப்படும்.

பொதுவாக இவ்வகையான

மாணவர்களுக்கு கையெழுத்து மோசமாக இருக்கும். சொற்களை

முறைப்படுத்தி எழுதுவதில் சிரமம், எழுத்துக்கள் மற்றும் எண்களை முன்பின்

மாற்றி எழுதுதல்,வார்த்தைகளை மாற்றி எழுதுதல்,சாய்வான கையெழுத்து

ஆகியவை இதில் அடங்கும்.

அறிகுறிகள் :

- புரியாத கையெழுத்து
- பென்சில் மற்றும் பேனாவை முறையாக பிடிக்காமல் எழுதுதல்
- எழுதுவதில் அல்லது படம் வரைவதில் மிகுந்த வெறுப்பு.

DYSGRAPHIA EXAMPLE BY A DYSLEXIC STUDENT - Grade 4

Wean More got home, she went
to room to xink. she got out her pens/
and paper and sat at her desk.

- இலக்கணத்தில் பிழைகள்.
- எண்ணக்களை எழுதுவதில் சிரமம்.
- எழுதும் போது விரைவில் சோர்வடைதல்.
- சத்தமாக சொல்லிக்கொண்டே எழுதுதல்.
- எழுது போது வா தைகளை விட்டுவிடுதல். அல்லது குறைவான சொற்களை உபயோகித்தல்.

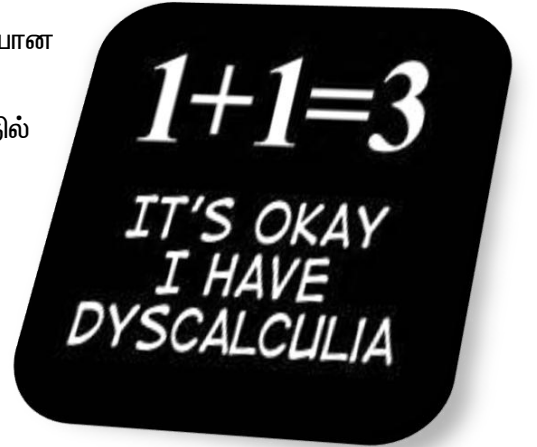
டிஸ்கால்குலியா (Dyscalculia).

கணிதத்தில் தீர்வுகாண்பதிலும், கணக்கு கோட்பாடுகளை உட்கிரகித்தலிலும் சிரமம் ஏற்படுதல், கணக்கிடுதலில் இயலாமை எனப்படும். கணக்கிடுதலில் இயலாமை, வாசித்தல் இயலாமையுடன் இணைந்தே காணப்படுகிறது. இதனால் பாதிக்கப்பட்ட குழந்தைகள் எளிமையான கணக்குகளை தீர்க்கக்கூட அதிக நேரம் எடுத்துக்கொள்கிறார்கள். இவர்கள், எண்கள், குறியீடுகள் மற்றும் படிகளை புரிந்துகொள்ளுதலிலும் ஞாபகத்தில் வைத்துக்கொள்வதிலும் சிரமம் ஏற்படும்.



அறிகுறிகள் :-

- கணித தொடர்பான சொற்கணக்குகளில் சிரமங்கள்.
- பண பரிமாற்ற கணக்குகளில் சிரமங்கள்.
- கணக்குகளில் உள்ள தொடர்ச்சியான படிகளை புரிந்து கொள்வதில் சிரமம்.
- கணித செயல்முறைகளை விவரிப்பதில் சிரமங்கள்.
- கூட்டல், கழிதலில் சிரமம்
- ஒரே மாதிரியான குறியீடுகளை அறிந்துகொள்வதில் குழப்பம். எ.கா: =, -, +, <, >
- கால அட்டவணையை பின்பற்றுவதில் சிரமம்
- குறைத்தல், கழித்தல் போன்ற வார்த்தைகளின் பொருள் புரியாமல் இருத்தல்
- மனக்கணக்கு செய்வதில் சிரமம்.
- எண்களை மாற்றி எழுதுதல்
- கடிகாரதில் மணி பார்த்தலில் சிரமம்
- சதுரங்கம் போன்ற விளையாட்டுகளில் சிரமம்



- விளையாட்டுகளில் தன்னுடைய மதிப்பீட்டை கருத்தில் கொள்வதில் சிரமம்

செயல்திறன் இயலாமை:(Dyspraxia)

கை கால்களை உபயோகித்து செய்யும் வேலைகளில் சிரமம் ஏற்படுவது செயல்திறன் இயலாமை எனப்படும்.

மூளையின் செய்திகளை வெளியிடுவதில் சிரமம் காணப்படுவதால் இது வெளியீட்டு இயலாமை எனவும் கூறப்படுகிறது. செயல்திறன் இயலாமையில் கீழ்க்கண்டவற்றில் குறைபாடு காணப்படும்.



அறிகுறிகள் :-

- ◆ தலை சீவுதல், கை அசைத்து போய்வா எனக்கூறுதல்.
- ◆ பல் துலக்குதல், துணி மாற்றுதல்.
- ◆ எழுதுகோலை பிடித்தல், சட்டைக்கு பட்டன் போடுதல்

உணர்ச்சி மண்டல குறைபாடுகள்: (sensory Integration Disorder)

உணர்ச்சி மண்டல குறைபாடு என்பது நம் உடலின் உணவு மண்டல தூண்டுதலுடன் விழி வழி தூண்டுதல், செவிவழி தூண்டுதல், தொடுபுலன்தூண்டுதல், இணைந்த செய்தியினை ஒருங்கிணைக்கும் திறன் குறைதல் ஆகும்.

இந்த குறைபாட்டினால் உணர்ச்சி மண்டல வழியாக பெற்ற செய்தியினை சரியான முறையில் செயல்படுத்தும் மூளையின் திறன் பாதிப்படையும்.

அறிகுறிகள் :

- மிகவும் அதிகமாக அல்லது குறைவாக உணர்வுகளுக்கு (பிரதிபலித்தல், தொடுதல், ஒலி ஒளி, சுவாச தூண்டுதல்)
- உடல் இயக்கத்திற்கு மிகவும் அழுத்தமாகவோ அல்லது மிகவும் குறைவாகவோ புதிலுணர்வு தருதல்.
 - i) நகராமை (அ) கஷ்டப்பட்டு நகர்தல்
 - ii) அசட்டையாக நடத்தல் (அ) மிகவும் கவனமாக நடத்தல்.
 - iii) மிகவும் எளிதாக அதிர்ச்சி அடைதல்.
 - iv) தாறுமாறாக நடத்தல்.
- தன்னைச்சுற்றி குப்பை கூலமாக இருக்க அதிக ஆர்வம் (அ) வெறுத்தல்.

- தனக்கு பிடித்த ஒருவர் எங்கெல்லாம் தற்போது இருப்பார் என்று நினைத்து கொண்டே இருத்தல்.
- ஒருவேலைசெய்ய நாம் எவ்வளவு சக்தி தரவேண்டும் என்று னை பது.
- அசாதாரணமாக (அ) அதிகப்படியான (அ) குறைவாக செயல்படுவது (அ) காரணமில்லாமல் அங்கும் இங்கும் அலைவது.
- தன்னைத்தானே சமாதானப்படுத்துதல் அல்லது மனதை கட்டவிழ்த்து விடுதல்.
- சமூக உணர்ச்சி தபிரச்சனைகள்.
 - எளிதில் வெறுப்படைதல்
 - எளிதில் புரிதல்
 - தவறாக புரிதல்
 - எளிதில் புரிதல்
 - எளிதில் வெறிகொள்ளுதல்
 - எளிதில் வெளிப்படுதல்
- மிகவும் எளிதாக கவனம் சிதறுதல்.
- மிகவும் எளிதாக தன்னை மாற்றிக்கொள்ளுதல்.
- பார்க்கும் பிற பொருட்களின் (அ) உயிரினங்களின் உடல்சார்ந்த குணங்களை கிரகித்துக்கொள்ளுதல்.
- சொற்களில் புதிய யுத்திகளை திணித்தல், பேசுதல், மற்றும் மொழிகளின் வளர்ச்சியில்தோய்வு, தொளிவான பேச்சின்மை.

கற்றலில் இயலாமை கண்டறிய சோதனைகள் வழிகள் :

i) மரு துவ ப சோதனை :-

- நர மண்டல ப சோதனை
- உணர்ச்சி சார்ந்த குறைபாடுகள் சோதனை
- அறிவுத்திறன் மற்றும் வளர்ச்சி குறைபாடுகள் சோதனை
- மூளை நோய்களை கண்டறியும் சோதனைகள்.



- ii) இணையோரின் பள்ளி, சமூக மற்றும் முன்னேற்ற செயல்பாடுகள் முற்றிலும் ஆய்தல் வேண்டும்.
- iii) குடும்ப வரலாறு விரிவாக அறியப்பட்டு விவாதம் செய்ய வேண்டும்.
- iv) காலகட்ட அடிப்படையில் செயல் வெற்றிகளை ஆராய்தல் மற்றும் உளவியல் மதிப்பீடு செய்தல்.

வழக்கமாக பல வல்லுநர்கள் ஒரு குழுவாக இணைந்து மதிப்பீடு செய்வர். குழுவில் பின்வரும் வல்லுநர்கள் ரு ப .

- ◆ மருத்துவம் சார்ந்த உளவியல் வல்லுநர்.
- ◆ பள்ளி உளவியல் வல்லுநர்.
- ◆ கல்வியில் உளவியல் வல்லுநர்.
- ◆ வளர்ச்சி சார்ந்த உளவியல் வல்லுநர்.
- ◆ நரம்பு மண்டல உளவியல் வல்லுநர்.
- ◆ உள்ளியல்புகளை அறியும் வல்லுநர்.
- ◆ தொழில் வழி நோய் நீக்க வல்லுநர்.
- ◆ (கற்றலை பாதிக்கும் உணர்ச்சி மண்டல சா கித குறைபாடுகளை சோனி ப)
- ◆ பேச்சு மற்றும் மொழி சார்ந்த குறை நீக்கும் வல்லுநர்.



v) த நப மனியுடு :

இதன்மூலம்

- ④ குழந்தைகளின் கற்றலின் இயலாமையை கண்டறிய இயலும்.
- ④ குழந்தைகளின் அரசு கோட்பாட்டின் கீழ் சிறப்பு கல்விக்கான சலுகைகள் பெற தகுதி உள்ளதா என அறிய உதவும்.
- ④ தனிநபர் கல்வி திட்டத்தை (Individual Education programme) உருவாசிக உதளி .
- ④ குழந்தைகளின் கல்வி முன்னேற்றத்தை அளவிட ஒரு மட்டகுறி உருவாசிக முடிழி .

கற்றலில் இயலாமையின் மேலாண்மை முறைகள் :-

- கற்றலில் இயலாமை மற்றும் குறைபாடு உள்ளவர்கள் அதனோடு சேர்ந்து வாழ அதனை மாற்ற எதிர்கொள்ளும் திறனை வளர்த்துக்கொள்ளவேண்டும்.
- ஆரம்ப நிலையிலேயே உதவி பெறுவதால் கல்வியில் வெற்றி பெறவும் மற்றும் பின்னர் வாழ்வில் வெற்றி பெறவும் சிறந்த சாத்தியக்கூறு ஆகும்.
- கற்றலில் குறைபாட்டிற்கு சிகிச்சை அளிக்காவிட்டால் குழகிதை பள்ளியின் செயல்பாடுகளை வெறுக்க ஆரம்பித்து விடும். இதனால் மனச்சிதைவு, தாழ்வு மனப்பான்மை போன்ற வேறு பிரச்சினைகள் ஏற்படும்.

கற்றலில் இயலாமை உள்ள குழந்தைகளை ஆசிரியர்கள் எவ்வாறு கையாளலாம் என்பதற்கு சில உதாரணங்கள் பின்வருமாறு :

i) Dyslexia (வாரி குறைபாடு)

- சிறந்த பயிற்சி உக்திகள்:-
வை பலவகை உணர்ச்சி அனுபவ முறை (Multisensory experiences) மற்றும் உடனடி பதில் பெறுதல் (immediate feedback) மூலமாக குழகிதைகளுக்கு வா தைகளை கண்ட கீது வாசிக்க, கற்க உதவி செய்தல்.
- பள்ளி வகுப்பில் மாற்றங்கள் :
(எ. கா) (Dyslexia) குழகிதைகளுக்கு ஒரு செய னை கண்டு டிசிக கூடுதல் நேரம் தருதல், மேலும் கேள்விகளை ஒலி வரியாக கேட்க அனுமதித்தல்.

கற்றலின் திறமையை அதிகப்படுத்தும் யுக்திகள்:

- கருத்துக்களை உருவாக்க மற்றும் வார்த்தைகளை மாணக்கர்கள் தயார் செய்தல்
- மாணவர்களை ஒரு கதை படிக்க வைத்து அதின் ஒரு அர்த்தம், நீதி போன்ற கேள்விகளை கேட்டு விடை கண்டுபிடிக்க உதவி செய்தல் மூலம் கற்றலின் குறிக்காளை அடைதல்.

- படிப்பதற்கான திறமைகளை மேம்படுத்துதல் (அ) Work Sheet மற்றும் பல வகை பயிற்சி முறை பயன்படுத்துதல்.
- பாடங்களை உரக்க வாசிப்பதை ஊக்கப்படுத்துதல்.
- பாடங்களை படிசிக அமைனியான சூழலு , தானமாக படிசிக நேரமு ஒதுசிகவேண்டு .
- மாணவர்களின் தனிப்பட்ட கல்வி செயல்முறை வகுப்புஅமைப்பு திட்டத்தின் ஒரு பகுதியாக நாட்குறிப்பு கவடி (Journal writing) முறையை சேர்த்தல் வேண்டும்.
- அறிவூட்டல் முறையில் மாணவர்களுக்கு அர்த்தமுள்ள பாடத்தாள்கள் தர வேண்டு என: அகராணி மற்றும் பிரித்த வார்த்தைகளை அட்டவணை தருதல்.
- மற்ற ஆசிரியர்களுடன் தொலை தொடர்பு சாதனங்கள் வாயிலாக தொடர்பினை ஏற்படுத்தி கொள்ளுதல்.
- மாணவர்களை பாடத்தை உரக்க வாசிக்கவைத்து அவர்களின் தவறை கண்டு டி து னிரு தவேண்டு
- தனசிசு இணையான சக மாணவர் குழு (அ) பெற்றோடன் இணைந்து படித்தல் முறையை பயன்படுத்துத்துவதின் மூலம் மாணவர்களின் தன்நம்பிக்கை வளரும்.
- குழுவாக உரக்க படித்தல் மூலம் செவி வழி, விழிவழி மூலமாக தங்களுக்குள்ளேயே தவறுகளை சரிசெய்துகொள்ளுந்துதல் தரும்.
- நிறக்கேட்பாடு பாட நூல்களை பயன்படுத்துதல்.
 - பச்சை ற - ஆரம்பித்தல்
 - ரிக ற - நிறுத்துதல்
- குழுவாக து அடிசிகடி உரக்க வாசித்தல் முறையை ஏற்படுத்துதல்.

ii) **DYSGRAPHIA** (எழுதுசிகுறைபாடு)

- சிறந்த வழிமுறைகள் :
 - i) வாய்வழி தேர்வி நடத்துதல்
 - ii) சொல் கேட்டு எழுதுபவரை தேர்விற்கு அனுமதித்தல்.
- தொழில் நுட்பங்களை பயன்படுத்துதல் :-

(எ. கா) எழுதுவதற்கு மாற்றாக

 - i) word – processing programmes மற்றும்
 - ii) ஓ பணிரி (ரனையடிசநஉடிசனநச) உபயோ சிக அனுமதித்தல்.
- எழுதுவதை குறைக்கும் இதர வழிகள்:

- i) ஆசிரியரின் காகித குறிப்புகள்
- ii) உருக்கோடுகள் (outlines)
- iii) அச்சடிக்கப்பட்ட பாடக்குறிப்புகள்

எழுதும் குறைபாட்டை நீக்கும் யுக்திகள்:

- ◆ எழுத போதுமான கால அவகாச தர வேண்டு .
- ◆ மாணவ களை சாலமான எழுத்து வேலைகளில் ஈடுபடுத்த வேண்டு .
- ◆ மொ பாடங்களுடன் ஒ யத்களை ணை து எழுதுதல் மூலம் எழும் ஆ வ தை தூண்டி டலா .
- ◆ மாணவ களுசி கு ணி பட எழுதுதலை மையமாக வைத்து பயிற்சி தரவேண்டும்.
- ◆ இலக்கு நிர்ணயம் செய்தல் மற்றும் தான் எழுதிய படைப்பினை சுய பரிசோதனை செய்தல் மூலம் அவர்களின் வளச்சியை கண்காணிக்க முடிழி .
- ◆ ஞாபகம் வைக்க கடினமாக இருக்கும் எழுத்துக்களை மற்ற மாணவ களை எழு தாக உருவாக்க செய்தல் வேண்டும்.
- ◆ நிறங்கள் மூலமாக நினைவூட்டல் பொருட்களை உருவாக்குதல்.



III) Dyscalculia (கணக்கிடுதலில் குறைபாடு)

- □□ – வழி உபகரணங்கள் :
ஆசிரியர்கள் மாணவர்களுக்கு விதவிதமான வண்ண பென்சில்களை பயன்படுத்தி கணக்குகள், கேள்விகள், பாடங்கள் பதில்கள் ஆகியவற்றை வேறுபடுத்தி காட்ட பயிற்றுவித்தல்.
- □னைவாற்றல் வழிகளை பயன்படுத்துதல்:
மொ பாட்டு (Rhymes) மற்றும் இசை வழியாக எளிய முறையில் பயிற்றுவித்தல்
- கணினி பயன்படுத்துதல்

எண்ணுதல் குறைபாட்டை நீக்கும் யுக்திகள்:

- பொருட்களை பயன்படுத்துதல்:
✚ மணிகள் மற்றும் பொத்தான்களை பயன்படுத்த வேண்டும்.
- காட்சி விளக்க பொருட்களை பயன்படுத்துதல்:

- காட்சி வகை பொருட்கள் மூலம் செயல்சார்ந்த மறுவூட்டல் முறை
 - ✚ எ. கா:- கணக்கீடு செய்யும் போது கைதட்டுதல், செயல்முறைகளை கணக்கீடு செய்தலை விளக்குதல்.
- தொட்டுணரும் பொதுகாட்சிமுறை பயன்படுத்துதல்:-
 - ✚ எ. கா:- பல்வேறு அளவுகளில் வெட்டப்பட்ட உப்பு காகிதத்தை பயன்படுத்தி அதிகம்/குறைவு கருத்தை விளக்க பயன்படுத்துதல். மற்றும் மாணவர்களின் கைகளில் பின்புறம் எழுதியுள்ள கணக்கீட்டை தொட்டுரை சொல்லுதல்.
- பல வண்ண நிறவூட்டல் பொருட்களை பயன்படுத்துதல்:
- ஒவ்வொரு வகுத்தமைத்தல் செயலுக்கும் மாதிரி கேள்விகளை தருதல்:
- பாட வகுப்புகளை ஒன்றோடு மற்றொன்று சார்ந்து கால நிலைமைக்கு ஏற்ப விழிப்புணர்வு ஊட்டல்:
- காட்சி முறை அட்டவணை படுத்துதல்:
 - ✚ எ. கா: - எண்களை வை து ளையாடி டையை கண்டுபிடித்தல்.
 - ✚ சீட்டாட்டம் பயன்படுத்தி எண்களின் கணக்கிடுதலை விளக்குதல்.
 - ✚ வகுப்பில் அளவீடு முறை பயன்படுத்துதல்.
 - ✚ ம ச்சட்ட (Abacus) பயன்படுத்தி கணக்கீடு செய்தல்.
 - ✚ கணிதத்தில் உதவி சொற்களை பயிற்றுவித்தல்.

iv) **DYSPRAXIA (கவனித்தல் குறைபாடு)**

- அமைதியான கற்கும் சூழல் : ஒலி மூலம் கவனச்சிதறல் ஏற்படும் குழகிதைகளுகிசு படிசிக, எழுத, கவ சிக அமைனியான சூழலை உருவாசி கொடுசிக வேண்டு .
- ஏற்பட போகும் ஒலியினை முன்கூட்டியயே எச்சரித்தல்.
- தொழில் வழி சிகிச்சை முறை : (Occupational therapy)
Dyspraxia குறைபாடுள்ள குழந்தைகளுக்கு அவர்களின் அனுதின செயல்களை தாங்களாகவே செய்து பயிற்சி அளிக்க வேண்டும்.

(R T I Response to Intervention)

இம்முறை பின்வரும் செயல்களை கவனிக்கும்.

அனைத்து குழந்தைகளின் முன்னேற்றங்களை கூர்மையாக ஆராய்ந்து கவனித்து கற்றலில் இயலாமையின் காரணங்களை கண்டுபிடித்தல்.

பாதிப்புள்ள குழந்தைகளை கண்டுபிடித்து பல கட்டங்களில் அவர்களுக்கு உதவுதல்.

ஒரு குழந்தை முன்னேற்றம் வெளிப்படுத்தாதபோது கற்க உதவி செய்ய சரியான இணையோரை தேர்ந்தெடுத்தல்.

பெற்றோரின் கடமைகள்:-

பின்வரும் குறிப்புகளை பெற்றோர்கள் மனதில் வைத்து கொள்ளவேண்டும்.

- குழந்தைகளின் தன்னம்பிக்கைக்கு ஆதரவாக இருத்தல் வேண்டும்.
- உறவினர்களின் குழக்கங்களுக்கு செயலாற்றல் திறமை உண்டு அதனை கண்டுபிடித்து வலுப்படுத்துதல் வேண்டு .
- பெற்றோர்களுக்கு தன்னம்பிக்கை வேண்டும் அவர்களே குந்தைகளை துன்பத்திலிருந்து விலகி ஆற்றல் பெற துணையாக இருப்பர்.
- பெற்றோர்கள் எதன் குழந்தைகளை குடும்பத்தில் ஈடுபாடு, பொறுப்புணர்வு மற்றும் சமுதாயத்தோடு ஈடுபட வைக்க வேண்டும்.
- குழந்தைகள் தானகவே விருப்பப்பட்டு முடிவு செய்து சுய ஒழுசிக் தை வளர்க்க பெற்றோர்கள் வாய்பு தர வேண்டும்.
- பெற்றோர்கள் தங்கள் குழந்தைகளோடு இணைந்து குழந்தைகளின் தவறுகள் மற்றும் தோல்விகளை திறம்பட சமாளிக்க உதவ வேண்டும்.
- பெற்றோர்கள் குழந்தைகளுக்கான பயிற்சி வகுப்பு நிகச்சிகளில் பங்குபெறவேண்டு .



சிறந்த கல்வி சேவைகள்

குற்றலில் குறைபாடு கண்டுபிடிக்கப்பட்ட குழந்தைகள் இந்த சேவைக்கு தகுதியுள்ளவர்கள் ஆவர். குறைபாடுகள் நபரின் கல்வி முன்னேற்ற சட்டத்தின்படி (I. D. E. A) குறைபாடுள்ள குழந்தைகள் சிறப்பு கல்விமுறை உள்ள பொது பள்ளியில் லவசமாக படிசிக் முடிழி .

தனித்தன்மையாக்கப்பட்ட கல்வி சேவைகள் (I . E. P. S)



சிறப்பு கல்வி சேவை பெற தகுதிபெற்ற மாணவர்களுக்கு தனித்தனமாக தனித்துவம் வாய்ந்த கல்வி நிகழ்ச்சி தொகுப்பினை பெற வேண்டு . தகைய த நப கான எழுத்துவகை கல்வி முறையானது:-

- ◆ குழந்தைகளுக்கு த துவமான லசி னை ண சிசு .
- ◆ குழந்தைபெறும் சேவையின் திட்டம் தனித்துவமிக்கதாகக்கப்படும்.
- ◆ குழந்தைகளின் முன்னேற்றத்திற்கு உதவி செய்யும் ஆசிரியர்களின் பெயர் பட்டியல் தெரிவிக்கப்படும்.

சிறப்பு வகுப்பு கல்விக்கு தகுதிபெறுதல் :-

ஒரு குழந்தை தகுதி பெற கல்வி திட்ட விதி மற்றும் தேசிய மா ல சட்ட னைகளுக்கு உட்பட்ட முக்கிய அம்சங்களுக்கு உட்பட்டவராக இருத்தல் வேண்டும். தங்களின் குழந்தைக்கு சலுகை பெறும் தகுதி உள்ளதா என்பதை பள்ளி தலைமை ஆசிரியர் (அ) சிறப்பு கல்வி திட்ட ஒருங்கிணைப்பாளரிடம் கேட்டு தெரிந்து கொள்ளவேண்டும்.

பின்வரும் இணையதளம் மற்றும் வலைதளங்களை பெற்றோர்கள் பயன்படுத்தலாம்.

- i) பெற்றோர் தொழில் நுட்ப உதவி மைய இணையதளம்.
(The Parent Teacher Assistance centre website)
- ii) I.D.E.A பெற்றோருக்கான வழிகாட்டி இணையதளம்
(The Parent Guide to I. D. E.A)

